SCRAP

BOOK

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MARK TWAIN'S
ADHESIVE
SCRAP BOOK

PATENTED JUNE 24, 1873.

by SAML. L. CLEMENS.

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DIRECTIONS.

REMOVE THE OILED PAPER AS THE LEAVES ARE USED.
MOISTEN ONLY AS MUCH OF THE GUMMED LINES AS YOUR SCRAP
WILL COVER AND PRESS THE SCRAP ON WITHOUT WETTING IT.

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Nautical Queries. What is the average life of ships, counting from berth to their dead reckoning?

Why do they always declare that a man is aboard when he enters a ship?

Has the "arm of a sea" an elbow or a hand?

Are the buoys of a vessel allowed to set the dogs on the cats?

Does a ship "hug the wind" from love or joy?

Does the apron of a gun help to keep it clean and tidy?

Is the cockpit of a ship used for fighting game chickens?

Do tiers of guns ever fall from the "wind's eye"?

In what part of a ship do they stow away the saddles, shoes, beds, sheets, shirts, shifts, ribbons, pegs, caps, rings, pins, slings, etc., etc., and what is the use of so many of such articles on board a ship?

Is the fish tackle used in catching fish?

Is n't it queer they should always anchor ships in the roads? Don't it interfere with travelling?

Are bobstay, jackstay, backstay, etc., brothers or cousins?

Why has a man-of-war's colt no tail, while a cat has nine?

Does the dolphin striker ever hit a dolphin?

What kind of tacks are used in tacking a ship?

Does the captain sleep between the main sheets or fore sheets?

If a ship misses her stays does she go back for them?

Is the wake of a ship anything like an Irish wake?

Are guys and jeers always allowed aboard a ship?

Are bridles, stirrups and martingales used for riding sea horses?

Jewell blocks and garnet blocks must be expensive—are n't they?

Does a sheep shank make good soup?

Are any of the davits affi-davits?

The bow of a ship must be very polite. Is the stern always severe?

Is the ship's magazine much read by the sailors?

Is the spanker ever used for flogging the men?

Are the boat's painters ever employed in painting the vessels? How do they mix their colors?

Does a ship wear whalebone in her stays?

With what scales does a ship weigh her anchor?

Why on earth do they weigh anchor so often on board?

How many feet are there in a ship's yard?

Does the captain drive his wife in his gig?

Is the grog of a ship kept in the post holes?

What do sailors do with the knots a ship makes?

Do they lash the masts with the cat, the colt, or some other sort of a whip?

Is n't it cruel to whip ropes' ends so constantly?

Is the ship's companion a male or female?

Are a ship's shrouds made of linen or cotton?

When a ship answers her helm, what does she say? [Baltimore Enquirer.

[For the Transcript.]

Notes on Whales and Whaling. IX.

THE DIFFERENT KINDS OF WHALE.

There are twenty-four recognized varieties of the whale family, viz.:

1. The Sperm Whale. (Cachalot Cuvier, Physeter Catodon Linn.,Grand Cachalot Bonnet, Cachalot macrocephalus, Lacépéde, Desmaret, etc.
2. Common Right Whale of Northern Seas—a Greenland whale. (Balæna mysticetus.
3. Humpback. (Balæna gibbosa.)
4. Rorqual or Razorback. (Balæna physalis).
5. Blackfish. (Phocœa).
6. Sulphur Bottom.
7. Finback.
8. Right Whale Porpoise. (Delphinus Peronii.)
9. Common Porpoise or Dolphin. (Delphinus delphis.)
10. The Grampus.
11. Bone Shark.
12. The Cape Whale or Right Whale of South Seas. (Balæna australis.)
13. Bowhead Right Whales.
14. Russian or Camelbacked—a N. W. whale.
15. The Narwhal.
16. The Horned or Unicorn Whale.
17. California Gray Whale.
18. Brick-colored Whale.
19. Killer.
20. Cow Tusk.
21. Scrag Whale.
22. Elephant Whale.
23. The Deductor or Caing Whale.
24. The Delphinapterus or Beaked Whale.

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THE HUMPBACK WHALE,

(*Balæna Gibbosa*, Ginelin, "*Balænoptera* species,) is a rorqual between 30 and 40 feet in length; derives its trivial name from an embossed appendage, a hump on the posterior part of the back. It has two spiracles or blow holes, or nostrils, on the summit of the head, and its mouth is furnished with plates of short whalebone. When seen on the surface of the water it closely resembles the sperm whale in appearance and color, and also in the habit of casting its tail vertically when about to dive. Experienced whalers, however, readily distinguish the two species by the spout, which in the humpback is less regular in its repetition, arises further back on the head, and ascending more perpendicularly, hangs longer in the air than that of the cachalot. It occurs in small herds in the Atlantic and Pacific, but not far from land. It is seldom molested by whalers, and never the chief object of their pursuit, though the oil it produces is superior to that obtained from the right whale, and but little inferior to sperm oil. Its flesh, when young, is delicate food." (Bennett.) "There is a great impediment to the securing the spoils of this game, for when killed they immediately sink for thirty or forty hours. It therefore becomes necessary to anchor a boat near by to watch, or leave a buoy, and then, not unfrequently, they may be swept off by the under current or lost by bad weather." (Wilkes.) or eaten by sharks. This whale abounds in the neighborhood of the Bonin Group, but the residents of Port Lloyd told me that when they had been killed and anchored the blubber was so invariably eaten off by the numerous sharks that infest those precincts, that it was found an unprofitable adventure. A whale ship (the Bowditch) which anchored at Port Lloyd in 1853, to pursue them with her boats, was compelled, after repeated attempts, to abandon the chase from this cause alone, the whales being abundant. It is also found on the coasts of Peru, Chili, New Holland, and up and down the coast of California. In latitude 40 it abounds in both hemispheres. Large ones yield 50 bbls. of oil—a common right whale of the same size would yield 100 bbls. It was probably of one of these whales that LeValliant tells this story as having happened in Saldante Bay in 1781—as they were known to frequent that bay, and I have myself seen them sporting in its waters. He says that, anchored in Saldante Bay, coast of Africa, a great number of whales were sporting about the bay, and while the captain and other officers were at supper one evening, a strange commotion was observed in the ship. Every person ran upon deck. The whole crew were alarmed. Some imagined they had run upon the rocks; others accounted for the shock in a different manner, but perceiving from the position of the other ships that they were at their usual anchorage, no one could conjecture the cause of what had happened, and their alarm was redoubled. Presently, however, upon a more careful observation, a whale was discerned entangled by the tail between the ship's cables, and making furious efforts to disentangle itself. All hands now rushed with harpoons into the boat, but the obscurity of the night retarding their movements, the whale, just as they were ready to attack it, succeeded in disentangling its tail and escaped.

THE GREAT NORTHERN RORQUAL, "RAZORBACK" OR "BINNER."

Balæna physalis is probably the largest of the animal creation, and is so named from its having a prominent ridge or spine on its back. It is generally over one hundred feet in length, and from thirty to thirty-five feet in circumference, but in proportion to its size and the difficulty in killing it, its value in oil and whalebone is inconsiderable. One of these whales was a few years since towed into the harbor of Ostend, and its skeleton, ninety-five feet long, was exhibited near Charing Cross, London. This whale, when taken, weighed 249 tons, and its blubber yielded 4000 gallons of oil. Mr. Frederick J. Knox has described the skeleton of a rorqual that was cast on shore at North Berwick and prepared and exhibited at Edinburgh, and states that 314 external plates of baleen or whalebone were counted on each side of the mouth of that animal. The whole number of plates which could be counted, not including the more minute bristling terminations, was 3768. The longest plate of baleen, which is always placed about the centre of the head, on each side, measured two feet two inches in length by fifteen inches in breadth. The substance when recent (says Mr. Knox) is highly elastic. The vertebral column of the rorqual contains sixty-three bones, those of the Greenland whale are not quite so numerous. The total weight of Dr. Knox's rorqual skeleton was twenty-eight tons, and its length eighty-three feet. The color of the rorqual is a pale bluish-black, with the abdominal regions of a grayish tint. In shape the body is not so cylindrical as that of the mysticetus, but is compressed on the sides and angular on the back. Hence the common name of "razor-back"; and from the dorsal fin which is low down and of a small size springs the equally familiar name of "finner." Its blubber is seldom more than half a foot in depth and eight or ten tons in weight; while its baleen also is much shorter, coarser, and every way less valuable, than that of the Greenland whale. This arises, partly from the upper jaw being less arched than in the common whale. There is another cause of the inferior fineness of the baleen in the rorqual, which is the greater size of the objects which it employs for food. In the stomach of one individual *six hundred great cod* and immense quantities of other large fish were found. The gullet is accordingly much wider than in the mysticetus. Another striking feature in the rorqual and one from which the name is derived, is an immense sort of fold or pouch along the under jaw. This was thought to be an air bag or swimming bladder, till the observations of Dr. Knox satisfied every one that it was merely a great water reservoir for augmenting the capacity of the mouth, otherwise so much diminished in the creature by the want of curve in the upper jaw.

The great rorqual has two blow holes, through which it blows violently and very loudly; its rate of motion varies from five to twelve miles an hour. The species is very numerous in the Arctic seas, and particularly about Spitzbergen and Nova Zembla. It is a much bolder animal than the mysticetus and fishes dislike to see it, as it is supposed to be avoided by the more valuable varieties of its race. If struck by the harpoon it is excited to more dangerous energy;

and on one occasion a whale of this species drew a whole whaling vessel with its crew with such violence on a bank of ice that every man on board perished. A roqual struck by Mr. Scoresby dived with so much velocity that it ran out 2880 feet of line in one minute and ultimately snapped the cord. Though thus dangerous, as well as comparatively valueless, the Laplanders and Greenlanders seize every occasion of attacking it in their small boats. They usually send as many harpoons into it as possible and get out of the way, leaving it to die alone, as it usually does, and is then cast or hauled ashore.

A LESSER SPECIES OF RORQUAL

is found in the Greenland seas, having, like the greater one, a dorsal fin, and measuring usually between twenty and thirty feet in length. That this is a distinct species of rorqual was proved by Dr. Knox, who got possession of a specimen that was cast ashore at Queen's Ferry, and found it to have only forty-eight bones in the vertebral column, whereas the other had sixty-three. This was decisive of its individuality as a genus. It has a fine blue tint in the skin, and its oil is considered as highly delicate and medicinal by the Icelanders, but otherwise the species is one of no general importance.

Two specimens of the greater rorqual have been observed which measured the enormous length of one hundred and five feet. One of these, Captain Scoresby states, was found floating lifeless in Davis Strait, and the skeleton of the other was observed by Captain Clarke on Columbia River. Other specimens have measured a hundred, and others from ninety to eighty feet.

KILLING WHALES BY CANNON.

The inventive genius of America has of late years been directed very largely toward improved modes of capturing fish. Even the whalefishery has, as is well known, lately been prosecuted by firing explosive substances into the body of the animal with shoulder guns or with cannon, and thus disabling it very quickly. This method has been adopted by many whalers in the Greenland seas, and has been especially applied of late to the taking of the large finback whales of the Norwegian coast. These animals have hitherto been but little disturbed by whalers, as they possess comparatively little blubber and are so active as to be rarely, if ever, successfully attacked by the harpoon.

A writer in "Land and Water" recounts a visit to the establishment of Herr Foyen, in the Varanger Fiord, where, from a small island, the fishery is prosecuted by means of two small steamers of about seventy tons each. The special apparatus employed consists of a harpoon, inclosing in its head half a pound of gunpowder, and with joint or hinged barbs containing some percussion powder between them. When the whale is within gunshot, this harpoon, attached to the end of a long cord coiled around a drum, is fired into the animal from a cannon about the size of a four-pounder. As the flukes penetrate the side of the whale they are naturally brought together or pressed down toward the shaft, and in so doing ignite the percussion powder, which sets fire to the gunpowder, causing an explosion in the body of the animal that usually produces a mortal wound. The whale, of course, starts off under the stimulus of the pain, and the rope is carried out for a time, being uncoiled from the drum precisely like a fishing line from the reel of a fishing rod, the steamer following after so as to prevent any undue strain. If necessary, a second discharge takes place, which almost invariably produces death.

The steamer then tows the animal back to the station, where the blubber is taken off in a long strip by means of properly constructed apparatus, after which the flesh is removed in a somewhat similar manner, and, finally, the bones are separated and hauled out. It is the intention of the proprietor to prepare a fertilizer by drying the flesh and reducing it to powder, and a brisk trade has already sprung up in Germany in this article. The bones are likewise to be ground and utilized in various ways; so that the entire animal—blubber, flesh and bones—will be put to economical purposes. The carcases of over thirty whales were heaped up on the island at the time of the visit referred to, forming a red hill of very considerable magnitude, visible at a great distance. The proprietor stated that the factory would not answer its expectations unless fifty whales could be taken every summer. It was thought, however, that there would be comparatively little difficulty in securing this number; and, in fact, over sixty in all were captured during the season.

[For the Transcript.]

Notes on Whales and Whaling. X.

"THE COMMON RIGHT," OR GREENLAND WHALE,

(Balæna mysticetus), called the "right" one from being the most valued and valuable object of pursuit; the right whale, according to experienced whalemen of Bhering Strait and Baffin's Bay, differing materially from the Kamtchatka, Northwest or Russian whale and the whales of the South Seas. The North Polar seas, if not its exclusive dwelling place, are, at all events, the region which it peculiarly frequents and where it herds in the greatest numbers. With the exception of some few points, the character of the Greenland whale is identical with the whole tribe, and, by calling attention to the peculiarities of structure in the species, much repetition may be spared.

THE SIZE OF THE COMMON WHALE

was the subject of very exaggerated notions until within a very recent period. About fifty years ago a standard writer in natural history asserted that whales were frequently "to be seen above an hundred and sixty feet long, and that, even at this standard, the animal was much smaller than it had been before man began to destroy the race." That whales two hundred and fifty feet in length were often seen previous is represented as a thing beyond question. Even Cuvier, the eminent naturalist, says stoutly there is no doubt that whales have been seen at certain epochs, and in certain seas, upwards of three hundred feet or one hundred yards in length. Mr. Scoresby, however, an excellent authority on the subject, seeing that he personally aided in the capture of three hundred and twenty-two of these animals, declares that the common whale seldom or never exceeds seventy feet in length and is much more frequently under sixty. Of those captured by him not one exceeded fifty-eight feet, and the largest ever taken of which he knew the reported measurement to be authentic, came up only to sixty-seven feet. The body of a large individual of this family measures from thirty to forty feet round the body at the thickest part, or a short way behind the head, which is of great proportionate size and occupies about one-third of the whole extent from snout to tail. When the mouth is open it is sufficiently large to admit a whale boat with its complement of men. The bulk of the head, which is somewhat conical in form and has a sort of round eminence above and posteriorly, renders the mysticetus clumsy and unshapely. A very slight diminution of the circumference indicates the position of the neck, and behind this the body swells to its greatest calibre, whence it tapers sharply away again towards the tail.

FINS.

The animal has no back or dorsal fin. The two side or pectoral fins are placed about two feet behind the angles of the mouth, and are nearly five feet broad by nine feet in length. The tail is something in the shape of a crescent, with an indentation in the middle of the concavity, the convex side being united to the body. This appendage is about twenty-four feet broad, and is placed horizontally. It has immense muscular power, and with it the whale has been known to give a stroke which has shivered large boats into a thousand pieces, and sent the fragments high in the air.

THE COLOR OF THE BODY

is mainly a velvety black, the under part of the head and abdomen, and the junction of the tail, being partly white and partly of a freckled gray. In old whales much more of the body assumes the latter tint, and the streaks sometimes resemble a beautiful landscape of trees. On the tail, in one instance noticed by Ray, nature, in a freakish mood, had set down the number 122, in large and very distinct characters. The eyes of the whale are about a foot behind the angles of the mouth, and are not much larger than those of an ox. The iris is of a white color, and the organs are guarded by lids and lashes as a quadruped's. The two blow-holes of this whale are situated on the summit of the head, and descend perpendicularly through it for a length of twelve inches or so into the top of the windpipe.

THE MOUTH OF THE COMMON WHALE

is an organ of very wonderful construction. In a large specimen it may measure, when fully opened, about 16 feet by 12 feet high and 10 wide—an apartment of comfortable dimensions. It contains no teeth, and, enormous as the bulk of the creature is, its throat is so narrow that it would choke upon a morsel of food fitted for the deglutition of an ox. An inch and a half is stated to be the diameter of the gullet in the very largest whales. From this peculiarity of formation it may be anticipated that the food of the animal is of a very minute nature, notwithstanding the vastness of the cavity which is prepared for its primary reception. The animal is indeed supported upon a multitude of the smaller inhabitants of the deep, and to permit this its mouth is provided with a remarkable apparatus, composed of what is called the *baleen*, or well-known whalebone of commerce. The baleen is arranged into two rows of laminæ or thin plates, projecting laterally from a line in the centre of the arch of the palate, somewhat like the laminæ of a feather. Towards the point of origin they are comparatively few in number and strong, while towards the lips they divide and taper away into mere bristles, forming a loose hanging fringe or border. There are about 300 of these plates on each side, and when dried they weigh usually above a ton. In the rorqual whale they are more numerous.

The use of these plates, with their pendulous extremities and fringes, is to retain, as in a net, the multitude of small animals which are floated into the mouth of the whale whenever it is opened. Were it not for such a drainer, formed by these fringes, with the aid of the tongue, which is merely a great mass of fat tied down to the lower jaw, the emission of the water would be attended by the escape of all the objects which entered with it. With its mouth wide open the whale rushes through the immense shoals of madusæ that are found floating in the seas; then, closing its jaws and raising the lips, the water flows out, and the little red creatures ("whale feed," sailors call them) are retained by the fringe. "What a capital shrimp trap!" said Sir Joseph Banks. The immense tongue, which sometimes yields six or seven barrels of oil, lies on the lower jaw. It is of a glossy white, so that when the capacious mouth is open it may be compared fancifully to a grotesque chamber with a ceiling of hair cloth and a white satin carpet.

THE SKIN

consists, first, of the scarf skin, or epidermis, which is moistened by an oily fluid, enabling it to resist the action of water; secondly, of the *rita mucosusæ*, a layer usually held to contain the coloring matter of all particular purposes, and is open in texture.

[For the Transcript.]

Notes on Whales and Whaling. XI.

Right Whale Porpoise. (Delphinus Peronii Lacépéde)—a rare and elegant species of dolphin, only once seen in the Tuscan, on her passage round Cape Horn. It has no dorsal fin or appendage, and hence the name given to it by whalers. Its average length is six feet. The upper part is of a deep black, terminating in an abrupt straight line, beneath which it is of a pure and dead white. Its flesh is delicate eating, and it congregates in large shoals.

The Common Dolphin or Porpoise—(Delphinus delphis Linn.)—is apparently common to every sea, and is also met with in the Pacific. (Bennett.)

THE GRAMPUS

is a name applied by South Sea whalemen to a species of cetacean very common in the Pacific, from the equator to 44° N. to 10° S. They occur in herds, and are supposed to indicate the resort of Cachalot. Whether it is identical with the North Sea Grampus is not known. Length from fifteen to thirty feet; oil from five to twenty-five barrels.

The Naturalist's Library says the Grampus is the fish called Killer or Thrasher by the Americans.

"BONE SHARKS.

These animals greatly resemble whales, excepting that their tail fin is perpendicular and they do not spout, swimming near the surface of the sea, apparently about twenty feet long. They are said to have whalebone in the mouth, and, like the shark and other fish, can live under water for an indefinite time. Some whalers religiously avoid encountering them; they have sometimes been mistaken for whales; they are scarcely known; perhaps they may be allied to the Barking Shark (Squalus maximus)." (Bennett.)

"THE CAPE WHALES,

(*Balæna australis*, Desmoulins), right whale of the South Sea whalers, in commercial value is only second to the sperm whale. It so closely resembles the Greenland whale that it was regarded as the same animal until the researches of modern anatomists (and chiefly those of the immortal Cuvier) detected sufficient differences to justify the opinion that they are a distinct species, each peculiar to the polar region it inhabits.

Lieutenant Maury's researches have proved that the belt of warm equatorial water is a barrier which the right whale does not, and probably can not, cross, confirming the anatomical researches of modern naturalists. On the contrary, the Greenland and Pacific Northwest whale is the same animal. Hence was inferred an open northwest passage, until McClure's successful discovery made it certain.

The right whale of the south seldom exceeds fifty feet, but has been known to attain seventy feet in length. Its color is uniformly black, and one of average size produces eighty or ninety barrels of oil. It frequents the coasts of southern continents, as well as those parts where there is but little depth and where vast congregations of medusæ and mollusks furnish it food. In the central parts of the Pacific it is not known.

The cape whale differs from the sperm whale and most other cetaceans in the habit of repairing to shallow and sheltered waters to bring forth its young. Thus the western side of Cook's Strait, New Zealand, is called 'Motherly Bay' from this circumstance." (Bennett.)

BOWHEAD RIGHT WHALE.

The Bowhead Right Whale differs in form and spouts from all other whales known. The skin of the Bowhead is entirely smooth, of a very dark color, with the exception of two white bunches, each the size of an ostrich egg, forming the spout holes. The sea around where Bowheads are found is covered with parts of dead fish, supposed to have been discharged from the whales. Captain McKenzie says "they have a curve down with their heads from the spout hole to the nose end, so much so as never to show their heads forward of the spout hole—either when blowing or during their capture. No barnacles or other crustacea adhere to their smooth skin. They appear to be nourished by a different kind of food from other Right whales. Their excrement is different, being moulded, as if costive, and most exceedingly, horribly fetid."

There was exhibited in New Bedford a few years since a calf, taken from a Bowhead Whale, which was caught in the Arctic Ocean, and made two hundred barrels of oil. The calf was preserved in alcohol, and brought home by the barque Martha. It was two feet long, weighed four pounds, and was a perfect specimen of its species.

RUSSIAN, NORTHWEST, OR CAMELBACKED WHALE.

There is a marked difference between this and the common Right whale. The spout of the former is a perpendicular jet, running high, and then branching off in two parts; one falling over the head, the other continuing upwards until its force is spent, then falls towards the tail. The spout of the common Right whale is a low bushy jet, flying in all directions. The Russian whale spouts from the centre of a hump on his back. Immediately behind his hump the back caves in, and his tail is broad and square. The Russian whale is straighter on the back, and has a broader tail than the common whale.

The Russian whale has been seen as far south as 49° N. The quantity of oil obtained from a large sized whale of this kind varies from two hundred and ten to two hundred and twenty barrels, and from that down. The smallest whale of this species yield about ninety barrels. The average yield is one hundred and seventy-five barrels. Captain Roys mentions having had in his possession the under and upper jaw of a Russian whale, which was about twenty-four feet long by sixteen feet in diameter.

THE NARWHAL

"has a horn like a unicorn, which projects ahead, and is twisted, in appearance of solid bone or ivory." (McKenzie.) "This animal is from sixteen to twenty feet long, and provided with a straight tusk or horn, sometimes two, about four or five feet in length, and projecting from the snout. The animal has a spotted, grayish body, handsomely rounded off, and containing usually near a ton of oil, much prized by the Greenlanders, on whose coasts it is often seen. The horn yields beautiful ivory, and is greatly sought on that account." (Naturalists Library.)

THE HORNED OR UNICORN WHALE,

seen in the Polar Sea by Captain Roys, north of Bhering Straits, is a small whale. The horn, when full grown, is about ten feet long, projects from the upper lip, is of solid bone, and appears as if used by the whale for rooting up food from the bottom of the sea. It is thought they may prove to be the California Gray whale.

THE CALIFORNIA GRAY WHALE,

or Bay whale, usually yields 25 to 30 barrels oil.

THE BELUGA,

or White whale, seen by Captain Roys north of Bhering's Straits, "is a creature of pure white color, exceedingly rounded and symmetrical in form, and from twelve to twenty feet long. It abounds on the northern coast of Asia and America. In 1815 a beautiful specimen of the race haunted the Forth for three months, and was finally killed and placed in the Edinburgh Museum.

BRICK-COLORED WHALE,

seen by Captain Roys north of Bhering's Straits.

THE DEDUCTOR

is an Arctic animal, black in color and twenty or twenty-four feet long. It has scarcely any snout, and is most noted for its power in uttering loud cries when in distress, which circumstance has obtained for it the name of the Ca'ing (calling) Whale (Nat. Lib.)

THE DELPHINAPTERUS,

a South-Sea whale, is about six feet long, and remarkable only for being beaked somewhat like a bird.

THE SULPHUR BOTTOM.

This whale, like the Fin-back, is cosmopolitan in its habits and found everywhere. It yields from fifteen to fifty barrels of oil, and one has been taken that yielded sixty.

THE FIN-BACK

has a large fin on his back like the gnomen of a dial and is found all over the ocean, but from its speed is rarely captured and seldom or never pursued. It is often seen along the northwesterncoast of the United States, and may yield from fifteen to thirty barrels of oil.

BLACK FISH (PHOCÆNA SPECIES).

This whale averages sixteen feet in length

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Answer to Query 4803. I think these must be the questions and answers called for—fifty questions, the answer to each being the name of an author:

1. What did a rough man say to his son while eating beefsteak?
2. Is a lion's house dug in a hill?
3. Pilgrims and flatterers have knelt low to kiss him.
4. Makes and mends for first-class customers.
5. Represents the dwellings of civilized men.
6. Is a kind of linen.
7. Is worn on the head.
8. A name that means such fiery things I can't describe their pains and stings.
9. Belonging to a monastery.
10. Not one of the four points of the compass, but inclining to one.
11. Is what an oyster heap is like to be.
12. Is a chain of hills containing a dark treasure.
13. Always useful as you see; but, between you and me, not much of a chicken.
14. An American manufacturing town.
15. Humpbacked, but not deformed.
16. An internal pain.
17. Value of a word.
18. A ten-footer, whose name begins with fifty.
19. Brighter and smarter than the other one.
20. Worker in precious metals.
21. A very vital part of the body.
22. A lady's garment.
23. A small talk and a heavy weight.
24. A prefix and a disease.
25. Comes from a domestic animal.
26. A disagreeable fellow to have on one's foot.
27. A sick place of worship.
28. A mean dog 't is.
29. An official much dreaded by students.
30. His middle name is suggestive of an Indian or a Hottentot.
31. A manufactured metal.
32. A game and a male of the human species.
33. An answer to Which is the greater poet, Shakspeare or Tupper?
34. Meat, what are you doing?
35. Is very fast indeed.
36. A barrier built by an edible.
37. To agitate a weapon.
38. Red as an apple, black as night, a heavenly vision or a perfect fright.
39. A domestic worker.
40. A slang exclamation.
41. Pack away closely. Never scatter and doing so I will soon get at her.
42. A young domestic animal.
43. One that is more than a sandy shore.
44. A fraction in the currency and the prevailing fashions.
45. Mamma is in perfect health.
46. A girl's name and a male relative.
47. Take a heavy field piece, nothing loth, and in doing so, you 'll find them both.
48. Put an edible grain between a bee and an ant, and a much-beloved poet you 'll see.
49. A common domestic animal and what it can never do.
50. Each human head in time, 't is said, will turn to him before it 's dead.

ANSWERS.

1. Chaucer.
2. Dryden.
3. Pope.
4. Taylor.
5. Holmes.
6. Holland.
7. Hood.
8. Burns.
9. Pryor.
10. Southey.
11. Shelley.
12. Coleridge.
13. Young.
14. Lowell.
15. Campbell.
16. Akenside.
17. Wordsworth.
18. Longfellow.
19. Whittier.
20. Goldsmith.
21. Bret Harte.
22. Spenser.
23. Chatterton.
24. De Quincey.
25. Bacon.
26. Bunyan.
27. Churchill.
28. Curtis.
29. Procter.
30. Walter Savage Landor
31. Steele.
32. Tennyson.
33. Willis.
34. Browning.
35. Swift.
36. Barry Cornwall.
37. Shakspeare.
38. Crabbe.
39. Cook.
40. Dickens.
41. Stowe.
42. Lamb.
43. Beecher.
44. Milton.
45. Motherwell.
46. Emerson.
47. The Howitts, sir.
48. Bryant.
49. Cowper.
50. Gray.

E. M. D.

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heard at times without any spout. Perhaps, however, both functions are performed by it in a distinct manner.

CETACEANS

are naturally divided into three distinct tribes or families. The first of these is composed of whales which feed on the vegetable productions of the sea and rivers, and which are provided with teeth adapted to the nature of their food. They may be regarded as representing the herbivorous class of quadrupeds. They include in their number the Lamantins and Dugongs. These whales do not blow or spout.

THE SECOND FAMILY

is formed by spouting whales of predatory habits. They subsist chiefly on fish and sepia; have teeth only adapted for the prehension or coarse division of their food; and may be said to represent the carnivorous quadrupeds of the land. They are exemplified in the cachelots, porpoises and dolphins.

THE THIRD DIVISION

comprises the whalebone whales, as the rorqual and mysticetus (true or right whales.) In the place of teeth their jaws are provided with plates and filaments of whalebone (baleen,) which are movable, extensile, and adapted to retain, as in a net, the medusæ or small marine animals, which form the only food of this colossal family. In habits they will bear comparison with the insectivorous class of terrestrial quadrupeds.

THE TWO KINDS OF WHALES

which are principally the objects of search by whalemen are the sperm whales (macrocephalus) and the right whale (mysticetus,) as those of the second and third divisions above. Their feeding grounds are seldom in the same place, for while the latter frequents the coasts and bays the former is seldom found except in the deep sea, and generally far from land.

Whales of the different kinds are easily distinguished at a distance by the experienced from the volume of their spout, its direction and elevation, the number of times it is repeated, the manner in which they dive, the length of time they disappear, and the body they expose to view.

MIGRATIONS OF THE WHALE.

Lieutenant Maury endeavored to trace the migrations and haunts of the whale upon the ocean, by a similar method to that by which he was so successful in tracing the prevailing winds and currents of the ocean world. Taking the log books of numerous whaling ships, which records their successes and the places where whales have been found by them abundant, he placed their practical experience on a chart of a peculiar construction, and thus disclosed the whales' most favorite haunts. His circulars also elicited much new information respecting their habits and peculiarities.

LIEUTENANT MAURY'S PLAN

of exhibiting the result of these observations was by means of a chart of the world on Mercator's projection, divided into spaces inclosing five degrees of latitude and the same number of longitude, which were again subdivided into the required number of equal parts. In these five-degree squares the observations are so entered as to show at a glance the number of days for each month of which he has record in each square, the number of days in which whales, and usually roams in very large troops. They appear to inhabit the greater portion of the aqueous globe and are frequently seen between latitude 50° north and 35° south. They are sometimes taken by sperm whalers for oil for the ship's consumption; but their capture is sometimes attended with risk, as when harpooned they have been known to leap into the boat. One of average size produces from thirty to thirty-five gallons of dark oil of an unpleasant smell. (Bennett.) Others again assert that the oil, though small in quantity, is equal or superior to sperm.

[For the Transcript.]

Notes on Whales and Whaling. XII.

From their external forms so much resembling fish, and from being, like them, inhabitants of the vasty deep, whales have almost universally been considered to belong to that class of animated nature. That this is true is evident from the term "Whale Fishery," by which their pursuit and capture has always been and still is called. If I am not mistaken, it is only a few years since the wisdom of our legislators in Congress assembled styled them *fish* by solemn enactment, and only discovered their scientific ignorance when the law was found of no effect through the mistake. There was, indeed, some excuse for this mistake, since in Rees's Encyclopædia, and by Pliny, Bell, Ray, and other early naturalists, they are classed with fishes. Linnæus was the first to associate them with the mammalia, for reasons which Cuvier and all succeeding naturalists have allowed to be sufficient. An examination of their structure shows us that they differ from quadrupeds only in their organs of locomotion, while they are warm-blooded, breathe atmospheric air only and by means of lungs, and bring forth and suckle their young. In fine, all the details of their organization are the same as in that class of animals.

THE BONES.

The essential points in which cetaceans differ from quadrupeds may be thus briefly enumerated: An absence of cylindrical and hollow bones; a rudimentary anchylorid (united together) state of the bones of the neck; a modification of the anterior extremity and tail, by which those members are adapted to the office of fins; deficiency in posterior extremities, and perfect pelvis; inability to respire through the mouth, or utter vocal sounds; copulation *more humano*, and probably a higher standard of natural heat.

The structure which distinguishes cetaceans from the other inhabitants of the deep is their peculiarity of respiration. By a peculiar modification of the air passage in whales the *larynx* (or aperture of the windpipe) instead of opening behind the tongue, as in land animals, is continued to the spouting canal. Hence respiration cannot be performed through the mouth, but only through the spiracles, or nostrils; nor can any tones or voice be emitted except through the spiracles, which are badly adapted for such a purpose. It is yet an unsettled point whether the spiracles of spouting whales are entirely for respiration, or whether the water received into the mouth with the food is also ejected with it. But the spout seems nothing more than the vapor of their breath, and, as in the case of the dolphin, its breathing may be heard at times without any spout. Perhaps, however, both functions are performed by it in a distinct manner.

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The investigations connected with these animals have also pointed out the great current of warm water which keep up the ocean circulation of the Pacific, it might be said of the globe; for, as we study their habits, their instincts teach us that there are continuous currents in the sea between places the most remote.

These charts of Maury's show us where whalemen have hunted, and where they have found their game; designate those parts of the ocean the whales "use," and those they never visit, and where in each month of the year the animal is most likely to be found—results obtained from the embodied experience of hundreds of whalemen. An examination of these charts will satisfy one at a glance that the favorite haunts of the sperm whale are about the equatorial, and those of the right whale about the Polar regions; that near the tropics is a sort of debatable ground, where the pasturage of the one overlaps the pasturage of the other, and that on either hand a straggler from one herd is occasionally found far over within the borders of the other. Lieutenant Maury remarks, in conclusion, that as a result of his observations he is taught to regard the sperm whales as much out of place in cold water as the whalers themselves would regard as out of place a wilderness of howling monkeys of the Amazon among the Green Mountains of Vermont, and hence where they are found, he conjectures a current of warm water, even if none before has been discovered.

[For the Transcript.]

Notes on Whales and Whaling. XIII.

Oil, varying in quantity and quality, is obtained from every variety of the whale. The whalebone of commerce is taken only from the mouth of right whales. It is found in slabs, averaging a quarter of an inch in thickness, the longest being from six to eight feet long, and so narrowing to a point, their fringed ends forming a strainer, by means of which the huge animal collects the little animalculæ upon which it feeds.

All but the sperm whale inhabit the polar seas of either hemisphere, occasionally descending to as far as the latitude of 30° but rarely, and seeming to retreat before their pursuers into higher latitudes with each succeeding year. Of late they have found a new retreat in the seas of Ochotsk and Anadir, south of Bhering's Straits, and in that part of the Arctic Ocean lying north of them.

FISHING IN ARCTIC SEAS.

In the summer of 1848, Captain Roys, or Royce, in the American whaleship Superior, of Sag Harbor, L. I., passed through those seas, braving their unknown dangers and their rigorous climate. He had for a long time believed that a new and more profitable whaling ground existed to the north of Bhering's Straits, an opinion he formed from reading the voyages of Captains Cook, Clark, Beechy and others. The principal reason which induced him to put away for that ocean was a remark which he recollected to have read in Beechy's voyages, viz., "Off here we saw a great many black whales, more than I remember ever to have seen, even in Baffin's Bay."

The captain, describing his voyage, says—

I entered the Arctic Ocean about the middle of July, and cruised from continent, going as high as latitude 70°, and saw whales wherever I went, cutting in my last whale on the 23d of August, and returned through Behring's Straits on the 28th of the same month. On account of powerful currents, thick fogs, and near vicinity of land and ice, combined with the imperfection of charts and want of information respecting this region, I found it both difficult and dangerous to get oil, although there is a plenty of whales.

During the entire period of his cruise there no ice was seen, the weather was ordinarily pleasant, so that the men could work in light clothing. In most parts of the ocean there was good anchorage from fourteen to thirty-five fathoms. During a part of the time that the vessel was there she lay at anchor. The first whale was taken at twelve o'clock at night. It was not difficult to whale twenty-four hours, so light was it that at midnight it was easy to read in the cabin. The whales were quite tame, but entirely different from any which Captain Royce had ever before seen or taken. He took three different species, one of the largest yielding two hundred barrels of oil. The first species much resembled the Greenland whale, yielding about one hundred and seventy barrels; the second was a species called Polar whale, a few of which have been taken on the Northwest Coast; and the third a small whale peculiar to that ocean. The last three which were taken yielded over six hundred barrels.

LARGE WHALING FLEET.

Influenced by the report which he brought back as to the abundance of whales, owners in the United States fitted out a large fleet for those grounds, and in 1849 Captain Roys was followed by 154 sail of whale ships, each vessel worth on the average, with her outfit, $30,000, and manned by 30 able-bodied seamen each. This fleet took that season 206,850 barrels of whale oil and 2,481,600 pounds of bone. In the summer of 1850 there went up a whaling fleet of 144 American vessels, manned as above, and of a like average value. This fleet, in the course of the few weeks left for their pursuits in those inhospitable regions, took 243,680 barrels of whale oil and 3,654,000 pounds of bone. In the year 1851 there went up a fleet of about 145 American vessels.

THE LIVES AND PROPERTY

at stake in the Arctic seas in 1849-50 have been officially stated thus, viz.:

1849—Number of American seamen	4,650	
Value of ships and outfits...	$4,650,000	
Value of oil taken..........	2,606,510	
Value of bone...............	814,112	
		$8,070,622
1850—Number of American seamen	4,320	
Value of ships and outfits...	$4,320,000	
Value of oil taken..........	3,761,201	
Value of bone...............	1,260,630	
		$9,341,831
Total ships in two years.....	299	
Total seamen.................	8,970	
Value of ships and cargoes		$17,412,453

In 1852 no less than 283 ships cruised in the Northern seas. During the year 1851 no less than seven sail of the fine fleet of 1851, the Howqua, the New Bedford, the Arabella, the America, the Armata, the Mary Mitchell and the Henry Thompson, were wrecked there, and left behind as monuments of the dangers which meet these hardy mariners in their adventurous calling.

ARCTIC WHALING GROUNDS.

Said the Hon. William A. Graham, secretary of the navy, in a letter to Congress on the subject, urging an appropriation for surveying the hidden dangers of the Bhering's Straits and Arctic whaling grounds—

All our commerce with what is called "the East" is not so valuable as this was for 1849 and 1850. We see by the statistics that in these two years more American seamen were engaged in that small district of ocean than are employed in our whole navy at one time; that in these two years these hardy mariners fished up from the bottom of the sea, and by their own energy created and added to the national wealth, the value of more than $8,000,000. And we moreover see that, owing to the dangers of the land and ice, the hidden rock and unknown shoals, one vessel in every twenty that went therein during the summer of 1851, has been left behind a total wreck, and that the lives of their crews, or of not less than one man for every twenty, engaged in that business, have been put in jeopardy, mostly from the want of proper charts.

[For the Transcript.]

Notes on Whales and Whaling. XV.

Captain Roys thinks—

THE WHALE OF BEHRINGS STRAITS

and Baffin's Bay are the same, and says they differ very much from the Kamtchatka or Northwest whale, or the right whale of the South seas. When a whale ship leaves port, a man is stationed in the crow's nest, so called, at the topgallant crosstrees of each mast to look out for whales, and the mastheads are kept manned from daylight until sunset, during all weather that admits boats to leave their ship, from the time of her leaving home until her cargo is completed or the voyage terminated. This lookout aloft is kept by turns of two hours each by the whole ship's company. In fine weather a boat is often kept aloft, manned, and engaged also on the lookout.

WHEN THE SPOUT OF A WHALE

is discovered, the discoverer immediately makes it known by the welcome and cheering shout of "There she blows!" which is repeated as often as the spout appears; and, though so far off as to be just discernible, yet by the peculiarity of its formation, as well as by the number of times and regularity of its appearance, the experience of a practical whaler can distinguish at once from what species the spout proceeds.

If it be a sperm whale and not to the windward, the ship is immediately headed for it, and all sail made in pursuit. After some few preliminary observations, such as noting time by watch, and with a spyglass tracing the animal's way through the sea, its course and rate of going are ascertained, which can be calculated with tolerable precision.

THE SHIP

is usually run within a half mile or so of the spot where the whale is expected to appear, when it rises to the surface, and by having the courses hauled up and one of the topsails hove aback, she is kept there nearly stationary. The boats are now lowered and sent off and are rowed in different directions, so that if the whale is not going fast, at least one of the boats is nearly sure of being near him when he rises; or should he chance to come up a mile from the boats they can generally reach him before he has his spouting out, as this occupies some fifteen minutes, and the light and peculiar whale boat can be rowed at the rate of six miles an hour, even over quite a rough sea.

IF THE WHALE BE SLOW

in his movements, the boats' crews have nothing to do while waiting for it to reappear but to lay on their oars; and as the time draws nigh, eager eyes scan all portions of the sea around, to catch the first glimpse of a rising spout. But if there happens to be much swell, from the depressed condition of the boats when in the hollow between two waves, that limits the extent of vision, it is difficult to discern a spout from them, except for a short distance; in such a case the main dependence is placed on the man at the ship's masthead, who, as soon as he sees the whale, runs up a signal, and points out its direction. This creates a scramble among the crews, as there is generally no small share of rivalry existing among them, and all strain every nerve with the view of being the first who approach, and have the honor of first planting their harpoons in the whale. As the boat, more favored by chance, or that outrows the others, gets within a few yards of him, the race is given up, and the sternmost boats cease rowing and silently await the issue of the first conflict.

APPROACHING WHALES.

Sometimes boats approach the whale as their situations chance to be, and pulling up to the head, get to the pervious part of its body, or at other times they proceed direct to its side, but the best, and generally the most approved way, is to row up from behind, and, if necessary, make a circuitous route to do so. The approach of a boat often alarms a whale, when he dives beneath the surface of the sea and suffers it to come near him no more; but more commonly, and especially on new grounds where they have been but little disturbed, there is no difficulty placing boats sufficiently near whales as to leave them in the attacker's power. It is probable however that boats seldom arrive near whales without their knowledge, such only making efforts to escape as have learned to regard them as enemies, by having before felt the sting of the weapons sent from them. The harpooner rows at his oar until the boat gets nearly "withtn dart," when he is called up by the officer who steers and controls the boat; and within a few feet of the whale, the boat's progress is checked as much as possible by strokes of the oars.

THE HARPOONER

now throws his two harpoons or "irons," which pass through the blubber and enter the fleshy mass that incloses the bones of this great animal, and these keen instruments, coming in quick succession, often give the whale his first intimation of danger. This is always a moment of peril to the assailants, and therefore one of fearful anxiety to the lookers on; as accident might proceed from the convulsive motions of the wounded whale, other boats promptly row up to assist the first. The skill and activity of every one are now in requisition least the slippery and valuable prize should by some means escape before receiving his death wound. If, as is often the case, a boat is badly stoven in the first onset, another takes in the immersed crew and tows the shattered boat to the ship, while the others make a fresh and combined attack upon the whale, which may then be rolling in the ocean foam produced by his own struggles, or perhaps rearing his mighty tail in the air and drawing it down on the sea with such force as to make it resound to a great distance.

CATCHING WHALES.

As soon as a boat is attacked, the officer in charge exchanges situations with the harpooner or boat steerer, as he is more generally called, the latter now steering the boat while the former goes forward and plies his lance, taking care to poise it well before throwing it, and to aim always so that some portion of the whale's vitals shall be pierced. Copious emissions of blood then gush from the spout hole, rise up a few feet and fall into the sea, dyeing it with the crimson fluid wherever the animal pursues its way. Where a whale has fairly received a harpoon there is but small chance for escape, as it seldom lives above an hour afterwards. When dead, a hole is cut in the tail or head through which a rope is rove, and if the ship is to the leeward the boats tow the whale towards her, but if the ship is to the windward she runs down within a short distance of the whale, when the fore topsail is backed, the whale is then hauled alongside, and a cable of rope or chain is put around its tail, and preparations made for "cutting in" the blubber and other oily portions.

A LABORIOUS PROCESS.

This is a laborious process, which, for a large sperm whale, requires the principal part of a day to complete. The cutting operation is performed from stages suspended over the ship's side; the cutters being provided with sharp instruments called spades, that have a razor-like edge of fine steel, and are affixed to poles of convenient length. The blubber is stripped off in pieces of about thirty feet in length and six in breadth, called "blanket pieces," which are stowed in the "blubber room," a portion of the ship between decks, directly abreast and beneath the main hatch—five or six of these pieces commonly taking the whole whale. The carcass is then abandoned, and usually sinks, but sometimes floats, and is preyed upon by venomous sharks and gluttonous albatrosses, and other hungry sea birds that hover about and watch the operation.

CUTTING UP.

While the blubber is being rolled off the whale the head is cut off and secured alongside until the blubber is hoisted in; when, if the whale is a small one, the head is hoisted on deck whole, but the immense weight of a large one renders this impracticable; it is, therefore, divided, and that portion of it denominated the junk, and weighing at least five or six tons; is hoisted on deck by the united strength of the ship's company, aided by the windlass and strong tackles, and its contents of spermaceti and oil carefully secured, as also the teeth for their ivory.

THE BLUBBER.

between decks is cut into small pieces so as to be conveniently handled, called "horse pieces," and is passed through the mincing operation, by drawing a long knife across or nearly through the pieces, cutting down portions from a half to three-fourths of an inch thick; these are not entirely severed, but for the convenience of removal are kept hanging together somewhat after the manner of book leaves.

TRY POTS.

In this state the blubber is ready for the try pots, into which it is put, together with a pike or fork, constructed for the purpose. A hot fire is kept under the pots, and in an hour or less a potful of blubber has all the oil tried out; "the scraps" are then skimmed off, and more blubber put in the pots. "The scraps" are preserved, and used as fuel to try out other blubber, and make, as may very readily be imagined, a hot fire.

THE OIL BOILED

off is put into a copper cooler, and from thence runs through a cock into a second cooler, and from thence is bailed into casks on deck. When perfectly cool, the casks are coopered and stowed below in the hold. It is necessary this oil should pass through the pots and be heated to prevent its becoming rancid. While fresh it is perfectly sweet, and like other animal fats only becomes rancid through age. While fresh it is sometimes used for culinary purposes on board ship, and "Yankee doughnuts" fried in fresh oil occasionally add variety to the homely and often scanty sea fare on board a whaler. A graphic writer and eye witness of the scene of a trying out says—

> A whale ship presents a strange scene during the process of trying out. The decks are literally swimming in oil; it covers the ropes, the men's clothes; the very galley and cooking coppers are saturated with it, and every mouthful of beef and biscuit has the whale flavor. The white sails are blackened by the smoke, and the neat, trim ship of yesterday has suddenly become a floating mass of dirt and grease enveloped in thick black, and stinking clouds. Our sails were nearly all furled at sundown, but the work went on all night. The fires threw a red glare on the ropes and spars, and fed by the oily scraps, sprang up, in vivid flames that lightened all the sea. Dark figures moved in the red gleam, armed with strange weapons, or stood beside great cauldrons, slowly stirring round their boiling broth. Unearthly noises and wild songs mingled with the low dash of the sea, the mournful creaking of the spars, and the sad moaning of the tainted wind; whilst over all hung a thick canopy of heavy smoke which, in that calm weather, drooped around the ship, and formed a fitting veil for such a dismal spectacle. But to the actors in it the scene had nothing of dismalness, for out of all this smoke and dirt we were to get clean gold. We were sea alchemists.

[For the Transcript.]

Notes on Whales and Whaling. XVI.

If the weather is fair and sea smooth, a large whale may be tried out in thirty-six hours, or on an average two to three barrels can be made in an hour, and if the whale be fat even faster. This operation of trying out the oil goes on night and day, the ship's company being divided into two watches, who perform duty alternately. A very graphic description of catching a whale, which could only have been written by one sharing in the excitement of such a scene, has been published in Dickens's "Household Words."

WHALE CATCHING.

The writer says, "With head and arms resting on the bulwarks I was chewing a quid when from the topmast crosstrees a clear voice rang out, 'There she spouts! Blackskin ahead! There she blows again!' 'Where away?' shouted the mate. 'Three points on the weather bow—Hurra? There she breeches clean out! Single spouts—a school of sperms!'

The quiet people of the ship were awakened up as though they had all been galvanized, and jumped about with delirious activity. The captain rushed up half dressed from his cabin with one side of his face elaborately lathered and a little rivulet of blood trickling from the other. Two men blocked up the fore scuttle and tumbled over each other in their eagerness to reach the deck. Then followed rapid orders, rapidly executed. The ship, which had been slipping along under double reefed topsail, foresail and mizzen, was easily hove to. 'Haul up the foresail! Back the main yard! Pass the tubs into the boat. Bear a hand and jump in! See the tackle falls clear! Ready?' 'Aye, aye, sir; all ready!' 'Lower away!'

EXCITEMENT ON SHIPBOARD.

The falls whizzed through the davit heads; the men, already seated at their oars, struck out the instant the boat touched the water. Among the men who struck out I was one, and I was then for the first time to commit assault and battery against the monarch of the sea and help if possible to part leviathan among the merchants.

Another boat was lowered soon after we left the ship and pulled in our wake; she followed as a 'pick-up boat' in case of accident. The ship, which had still a boat's crew and the idlers aboard, with yards braced sharp up and the leach of the topgallant sail touching, was laying a course nearly parallel to our own. The chief mate 'headed' the boat in which I rowed, and we had with us the best boat steerer in the ship. Both were anxious to be first 'fast' to the first whale of the first season. For me it was the first whale of my life, and, though I had been rather scared by the tough yarns of the old stagers about being 'chawed up by whales' and eaten alive by sharks, yet the active exercise and rapid motion soon stirred my blood and I fully shared in the general excitement. Three of our crew were natives of Tasmania (born of English parents), the best boatmen and the most daring whalers in the world, and impelled by their powerful strokes our boat was soon considerably ahead of the others. Though able to pull a good oar in a common way, I quickly found that this was different sport from any that I had before attempted. Our tough ash oars of eighteen-feet length bent and buckled with the strain. The boat sprang from each vigorous stroke and *hummed* through the water as a bullet through the air. The headsman, standing in the stern with the peg of the steer oar grasped in his hand, stamped and raved with excitement, throwing his body forward in sympathy with each stroke and with the right hand 'backing up' the after oar with all his strength. At the same time he was encouraging and urging us to fresh exertions, making the most absurd promises in case of success and threatening the boat steerer with all sorts of awful consequences if he missed the whale. By this time we were in sight of the school, and turning my head I could distinguish several of the low bushy spouts of the sperm whale and catch an occasional glimpse of a huge black mass rolling in the water, but there was no time for contemplation. Another boat was creeping up to us, and we were yet some distance from the game. The headsman grew more frantic. 'Give way, my sons! Lift her to it! Long strokes! Pile it on, my hearties! Well done, Derwenters! There she blows again! Twenty minutes more, and it 's our whale.'

Suddenly his face changed. 'Turned flukes!' said he. The whales had disappeared, and with peaked oars we lay motionless on the water, waiting their return to the surface. In a few minutes a short gush of steam and spray broke midway between the two boats. Half a dozen long strokes. 'Steady, my lads! Softly—so ho! Stand up!' and the boatsteerer, peaking his oar, took his place in the bows. 'Into her! Starn all!' shouted the headsman.

IRONS IN THE WHALE.

Both irons were buried in the whale, which lay for an instant perfectly still, whilst we backed hastily. Then the great black flukes rose in the air, and the whale 'sounded,' or dived, the line runing out of the tub, round the loggerhead at the stern, and out at the head with wonderful velocity. The wood smoked and cracked with friction, and the boat's head sank under the pressure.

More than half the line had run out before it slackened, and, in the moment it did so, we began to haul in again, and coil away in the tub. But the 'struck fish' quickly appeared, the momentum acquired in rising carrying him nearly clear out of water. He was evidently gallied (frightened,) making short darts in different directions. But as the boat approached, he started off, "eyes out," at full speed.

The line was now checked by a turn around the loggerhead, and only allowed to surge out gradually. The boat's velocity became terrific. We were carried through the water at the rate of nearly twenty miles an hour. Our little craft swept on in a deep trough, a huge wave of foam rolling ahead of us, and two green walls rising above the gunwale, threatening every moment to descend upon the boat, already half filled by the blinding spray. But the huge animal, to which our boat was harnessed, soon tired of his labor; the line slackened, and the monster lay writhing in agony on the surface, snapping his enormous jaws and furiously lashing with his tail. As we coiled away the line, and as the distance between us and our prey decreased, I will candidly own that I was as 'gallied' as the whale itself, and would have given my own share of him to have been absent from the scene.

HABIT ACCUSTOMS A MAN EVEN TO WHALING.

But few men, when 'fast' for the first time, feel altogether easy. Our headsman stood coolly in the bows, lance in hand, exclaiming, 'Haul me up, and he's a dead whale! A hundred barreller! Lay me on, lads!'

And with the boat's nose nearly touching, he plunged a lance repeatedly into its side. 'Starn all!'

The whale started ahead, but the keen weapon had reached 'the life,' and, spouting thick jets of blood, he fell into the 'flurry.' That was a tremendous spectacle. The enormous animal, convulsed in the agonies of death, rapidly circling in the midst of a dizzy whirl of blood and foam, striking alternately with head and tail; vast sheets of water flying from beneath the mighty blows which roared like cracks of thunder. At the same time, beyond the vortex the light boat danced as in triumph at her victory, and yet her slight frame trembled and vibrated with each stroke, as though she shuddered at the havoc she had caused.

In a short time the struggling ceased; the whale turned slowly over. We had then leisure to look about us. The two other boats were both fast to one fish, and nearly out of sight to windward. The fourth boat had struck a whale and lost him, from the irons having drawn, and was making towards us. Uniting our strength we took the prize in tow, and turned our course towards the ship, eight or nine miles distant. She was making a long stretch in the direction of the fast boats.

If was afternoon when, with no better dinner than a dry biscuit and water, and under a burning sun, we fastened our tow line, and commenced the weary drag—the hardest, but the most welcome part of the whaler's labor. With scorched faces and blistered hands we pulled steadily on, lightening our toil with many a chorus, and making rough calculations of the value of our prize. It was nightfall when we reached the ship, and then the whale, having been firmly lashed alongside by strong chains and hawsers, everything was prepared for cutting it next morning. Our shipmates soon followed with their fish, which was dropped astern, and buoyed with empty casks to prevent its sinking, for whalers not unfrequently lose the fruits of their toil by such an accident. The ship remained hove to all night, and by daylight we were hard to work. I could then have a good look at our prize.

A BIG WHALE.

It was a large sperm whale or cachalot, the most valuable and the most precious of the tribe.

Our whale measured fifty-four feet in length. Of the whole bulk, the head occupied nearly a third. Round the fins and lips hung hundreds of barnacles and whale lice, and I was only deterred from pronouncing our prize ugly by the fact that he was worth some six or seven hundred pounds—a handsome sum.

Its lower jaw contained a formidable row of more than forty teeth, the jaw itself being fifteen feet long. Some of these teeth were nine inches in circumference at the base, and fitted into a groove adapted to them in the upper jaw. The roof of the mouth in the sperm whale is covered with glistening plates of a bluish white. These plates are said to act as a bait to the fishes upon which the whale feeds, for the cachalot does not confine himself to shrimps, and though he usually dines upon "squid," or cuttle fish, of which whole acres are found floating in the Pacific, yet he does not object to a dolphin or bonito, and even the wary shark has sometimes the bad luck to be eaten by the great sea ogre."

[For the Transcript.]

Notes on Whales and Whaling. XVII.

At the age of two years whales are called "stunts," as they do not thrive much after quitting the maternal breast. From that time forward they are styled "skull fish," and their age is unknown.

THE FIDELITY OF THESE ANIMALS

to each other exceeds what we are told of the constancy of birds. The following is an instance of their great love: "Some fishers," Anderson informs us, "having struck one of two whales, a male and female, that were in company, the wounded animal made a long and terrible resistance; it struck the boat with three men in it, with a single blow of its tail, by which all went to the bottom. The other continued to attend its wounded companion, and rendered it every assitance; until at last the one that was struck sunk under the number of its wounds, while its faithful companion and associate, disdaining to survive the loss, with great bellowings, stretched itself upon the dead animal, and shared its fate."

THE PERILOUS ENCOUNTER

with a herd of sperm whales is a whaleman's delight, since sometimes no less than eight or ten reward his adventurous exertion. It has been noticed that when a whale is struck or harpooned, the whole shoal, though they are separated miles apart, instantly percieve the danger, and either rush at once towards their wounded relative or as instantly take flght, leaving it to its fate. If the herd surrounds the wounded whale, as is generally the case, each boat from the ship selects a particular object of attack, and when they have succeeded in killing their game, in order not to lose sight of it, as would be likely to happen without some such precaution, from the specific gravity of the body being so near the specific gravity of the water, a hole is cut in the whale, into which is inserted a pole about fifteen feet long, having a small flag attached to its upper end. This done the boats go in pursuit of more game, and only cease when there are no more whales to contend with, and those they have already captured are taken alongside and cut in at leisure.

THE HEAD OF THE SPERM WHALE

containing the spermaceti, is of enormous size, even when compared with the animal ittelf. It presents a thick, blunt, log-like extremity, constituting about one-third the entire length of the animal. Viewed in front the head shows a broad flattened surface, rounded and contracted above, considerably expanded at the sides, and gradually contracted below, resembling in some degree the bow of a ship. The skull bears a nearer resemblance to that of the dolphins than to the skull of any other cetaceans. Some years since a writer in the Boston Post, who had a good opportunity of observing a sperm whale at a few yards distance, says—

"The top of his head and shoulders were broad and flat, and near twelve feet across. His back, instead of appearing round, was nearly level, and showed room enough for a quartette of Highlanders to have danced a reel thereon. 'T would have been rather a slippery floor though, and I think a dancer would have wanted nails in his shoes. The breathing pipe of the whale was a round hole in the top of his head, with a slight rim around it."

so that a direct channel may run up to the Peabody line. Any impure deposit above the mills should be removed. Second—The dressing of the shores and curves of the North River below the mills with sand or gravel wherever deposits of filth may be found, or filling where it may be necessary. Third—The extension of all sewers to the channel or to permanent water wherever it is practicable. Fourth—The construction of a water gate at North Bridge, in order to flood the flats above during hot weather. Fifth—A thorough cleansing of the South Mill Pond in the spring. These several measures should be executed without great cost to the city and without addition to the public debt. A valuable system of streets can be ultimately built at the North River and Mill Pond districts.

FITCHBURG.

The Common Council organized by the election of Fred. Fosdick president, and John E. Kellogg clerk. In joint convention Henry Jackson was elected city clerk and auditor; Henry A. Willis city treasurer and collector of taxes.

GLOUCESTER.

The address of Hon. Joseph Garland congratulates the City Council on the prospect of less anxious and less numerous sittings than those of its predecessors, and discusses at some length the appreciation in value of the large extent of sea-coast lands within the limits of the city. The city's liabilities are:

Notes payable	$153,370.00
Town bonds	60,000.00
Unexpended credit, library	2,573.36
Proceeds of tax sales	115.37
Unpaid warrants 1874-1880	4,304.79
Unexpended bal., new school building	14,122.93
	$234,486.45

The assets are—

Notes receivable	$877.50
Taxes for 1878, 1879 and 1880	26,348.76
Cash on hand	52,525.15
	$79,751.41

The balance Dec. 20, 1879, was $153,002.19, which was increased by the schoolhouse loan to $173,002.19. Deducting $9500 notes paid and $8767.15, amount from contingent, the balance against the city at the present time is $104,735.04—including the $20,000 loan, an actual increase of indebtedness of $1732.85; exclusive of the $20,000 loan (provided for in ten years), a reduction of indebtedness of $18,267.15. Temporary loans to the amount of $40,000 were negotiated and paid. The total expenditures were $187,341.62; The mayor, while commending last year's liberality to the schools, says that still more is desired. The plan of making the school instruction less mechanical and more practical is indorsed, and the training school is alluded to with pleasure. The property of the fire department is valued at at $83,020; the salaries amount to $7078.67, and the miscellaneous expenditures to $8729.27. The administration of the city charities is commended as wise, the increase in expenditures ($464.99) being attributed to the increase in the number of insane.

At the conclusion of the mayor's address, Frank H. Gaffney was elected president of the Board of Aldermen, and the Common Council organized by the election of David R. Robinson president, Charles C. Cressy clerk, and the appointment of George Henry Morse as page. The two boards met in joint convention at two o'clock for the election of city officers.

FALL RIVER.

Mayor Greene states that the liabilities of the city of Fall River consist of the funded debt, $1,486,860.70; floating debt, $280,000; temporary loans, $75,000; cemetery trust funds, $2600; due water works department, $6000; total, $1,850,460.70. The assets consist of uncollected taxes for 1879-80, after deducting overlay, $101,500, and the sinking fund, $304,638.07, making a total of $406,138.07, and leaving the net amount of the municipal debt $1,443,822.63. The water debt, which is not included in the foregoing statement, amounts to $1,700,000, against which are to be placed the sinking fund, $42,910.40, and the amount due from the city, $6000, leaving the net water debt $1,651,089.60, and making the total net indebtedness of the city $3,095,412.03. Mayor Greene finds, by comparison of these figures with those of last year, a decrease of $53,698.63 in the total indebtedness of the city. The result has been accomplished with the smallest appropriations made by any preceding government since 1874.

NEW BEDFORD.

Hon. George Wilson, mayor-elect, and the new

THE SPERM WHALE

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the swell, or part between the hump of flukes, appears above water, curved with the convexity upwards; the flukes are then lifted high in air and having assumed a straight position, the animal descends perpendicularly to unknown depths. This is what whalemen call "peeking his flukes." The whale continues beneath the surface from an hour to an hour and a half, and seldom, if ever, exceeds the latter before returning to the surface to catch a fresh breath.

UNDER WATER.

"One hour," says Bennett, "is perhaps the average time for a large whale, but whatever may be the time that the whale remains under water after making a formal descent, it subsequently adheres to the same period with such regularity that its risings may be timed by a watch with considerable accuracy."

Thus it is seen between one-fourth and one-fifth, or according to Mr. Beale, one seventh of the animal's life only is occupied in sustaining vitality of breathing atmospheric air. The periods of time the whale is in the depths below, are often nicely measured. Captain Francis Post was onee in pursuit of a whale which was "going fast" nearly all day, and all that time he never stopped beneath the surface longer than fifty-two or less than fifty minutes, or spouted less than fifty-six or more than forty-eight times at each rising.

HOLDING BREATH.

It has been observed that whales suspend their breath longer in some seas than in others, probably because they have to go deeper for their food. Mistaking the harpoon for the teeth of the sandfish or shark, the whale, the instant he is struck, descends to the lowest depths of the ocean, that being his manner of freeing himself from those enemies, who cannot bear the pressure of a deep ocean; and from ascending and descending in a small space, he puts himself completely in the power of the whaler; whereas, if he knew his force, and were to swim on the surface in a straight line, he would break and destroy the line and harpoon by which he is conquered, as easily as the salmon breaks the line of the fisher who allows his reel to get entangled.

[For the Transcript.]

Notes on Whales and Whaling. XVIII.

An idea of the depth to which whales descend may be had from the fact, that when harpooned it has been sometimes necessary to connect three or more lines, each 225 fathoms (or 1350 feet) long to prevent escape. Four of these lines are therefore nearly a statue mile in length. They do not go down to the depth of the length of line out, however, as their course describes a curve, and from its great length and the pressure of the sea upon it, the line continues to be taken from the boats until the whale nearly reaches the surface.

WHEN THE WHALE REAPPEARS

at the surface after one of these deep dives, it is generally in an exhausted condition, in part no doubt caused by its flight and struggle to free itself from the sharp and cruel iron with which it is pierced, but no doubt its exhaustion is chiefly to be attributed to the vast pressure its huge bulk has been subjected in the depth to which it has descended, a pressure sufficient to force water through the pores of the hardest wood.

UNDER WATER.

Captain Roys states he has known a whale to sound deep enough to take out one thousand and fifty fathoms or sixty-three hundred feet of line, yet he never knew a whale of the right species to remain longer under water than thirty-five minutes, and one hour and thirty-five minutes for the sperm whale.

The Rev. Dr. Scoresby, in a lecture on the sperm whale, stated to a London audience, that whales are known to descend *perpendicularly* from 4200 to 4800 feet; and at the latter depth, he calculated, from accurate data, that a large sperm whale would have to sustain a pressure of two hundred and eleven thousand two hundred tons distributed over its entire surface, or about one hundred and thirty-seven and one-seventh tons on every square foot of its body.

EXPERIENCED WHALEMEN

have an idea that sperm whales breath a spout at each rising as many times as they will yield barrels of oil. (Probably the whales have studied in some marine Colburn our tables of liquid measure.) Captain McKenzie says he does not know how such a rule may work with small whales, yet he has noticed that those yielding from fifty to a hundred barrels do spout from fifty to a hundred times, and do index pretty accurately the amount of oil you may expect.

SPERMACETI.

A very large proportion of the head of a sperm whale is composed of soft parts situated in front of the cranium and named by the whalers the junk and case. The case and its boundaries constitute the upper and anterior portions of the head. The cavity to which the term case is applied, is situated beneath and to the right of the spouting canal, and corresponds to nearly the entire length of that tube. It is filled with a very delicate web of cellular tissue, containing in large cells a limpid and oily fluid, which is liberated with the slightest force. This is the spermaceti which gives name to the whale, and a "case" often contains from ten to fifteen barrels of it. When this is removed from the head, there is left a large tubular cavity which runs longitudinally its whole length, where, as a lively writer has remarked, a phrenologist might walk, and having lighted it with its own brains, point out to his puzzled visitors, by the light thus obtained, the places on its walls and ceilings where the different organs lay.

THE UPPER JAW

of the head when emptied forms a chamber nine or ten feet high by twenty or more in length, or nearly the dimensions of the parlors of a modern city residence. It is a little surprising that in their researches the phrenologists have overlooked the cranium of the great sperm whale. This case is inclosed by a cartiliginous substance that yields no oil, and this again has an outer covering which is of an intermediate nature between "blubber" and a singular part of the whale called "white horse," which contains no oily matter and is impervious to all but the keenest instruments. It is a tough, stringy and slightly elastic substance, as good as a cotton bale to shield the whale's head from blows, and which a cannon ball would hardly penetrate.

THE SPERMACETI

with which the case is filled is obtained by cutting into its upper end with a spade, one of the whaling instruments. A bucket attached to a pole is then forced down through the membranous filaments that oppose its way, and filled with the oil; it is then hoisted out by a pulley and emptied into a receiver. When first obtained the spermaceti is of a slight rose color, and looks like ice cream or white butter half churned. Nearly five hundred gallons have been taken from the case of one whale. At the completion of the voyage this oil is drawn from the casks, and after a process of boiling and cooling is put into vats, with a strainer, which detains the spermaceti mixed with oil. It is then a yellow viscous substance, which is afterwards put into strong canvas bags and subjected to a screw press, and next to hydraulic pressure, whereby the oily matter is expelled, leaving the spermaceti in hard concrete masses, which, after boiling with potash and purifying, is moulded into the beautiful, oilless candles, prized next after wax, and known as spermaceti.

ANCIENT VIEWS OF SPERMACETI.

Sir Thomas Browne in his *Pseudo doxia Epidemica*, a work on common and vulgar errors, originally published in 1646, has an article on the sperm whale, then scarcely known, and says of this substance, "What spermaceti is men justly doubt, since the learned Hofmanus in his book of thirty years saith plainly '*nes cio quid sit*,' and therefore need not to wonder at the variety of opinions; while some conceived it to be *flos maris*, and many a bituminous substance floating on the sea. That it was not the spawn of the whale according to vulgar conceit, a nominal appellation, philosophers have always doubted. That it proceeds from the whale was undoubtedly determined not many years since by a spermaceti whale cast on our coast of Norfolk." Sir Thomas describes the animal as having been sixty feet in length and teeth only in the lower jaw—the weight of the largest tooth exceeding two pounds, etc. He also mentions a smaller whale that had been stranded near the same place about twenty years previously. Out of the head of the large whale he says "It having been dead divers days and under putrefaction, flowed streams of oil and spermaceti, but upon breaking up, the magazine of spermaceti was found in the head, lying in folds and creases in the bigness of goose eggs, encompassed with large flaky substances as large as a man's hand in the form of honey combs, very white and full of oil."

"Combers of wool made use of it, and country people for cuts, aches and hard tumors. Distilled, it afforded a strong oil, with a quick and piercing water." He closes by saying, "Had that abominable scent permitted, inquiry had been made into that strange composure of the head, and hillock of flesh about it."

BENEATH THE CASE

and nostril, based on the upper jaw, and forming the front and lower part of the snout, is the elastic "junk" or "chunk," a solid mass of soft, yellow, and oily fat, formed of dense cellular tissue strengthened by strong, tendonous fibres and infiltrated with very fine sperm oil, and spermceti; in a large whale this part weighs between two and three tons. Next to the case, the junk contains, in proportion to its bulk, the largest quantity of oily matter, and while it is being cut into smaller pieces, the oil exudes so copiously that it becomes necessary to stop up the scuppers, and bail it from time to time off the deck. Mr. Cheever says a large barnacle has been found in this junk, which he thinks must have got there, as stones, deer's horns, and the like, get into the heart of trees, by having lodged on the outside, and being overgrown.

USE OF THE FAT.

So vast an accumulation of relatively light structure in the head and the cachalot is obviously intended to render the animal peculiarly buoyant, to insure its correct position in swimming, and by counteracting the weight of the bony structure of the head, to raise the spinacle above the surface. These objects are attained in the Greenland whale by similar accumulations of fat in the lips and tongue.

[For the Transcript.]

Notes on Whales and Whaling. XX.

It has been noticed that on their reappearance the large whales, when they are found either alone, in shoals, or with the cows, have their heads lacerated and covered with scars, and deep old ulcers, evidently the effect of their fighting one another. This conclusion is obvious, from the regularity of the two lacerated lines, such as their teeth would be likely to inflict. This is remarked by all old whalers and corroborated by long experience, and is thought to furnish an argument in favor of their remaining below. If they fought on the surface their wounds would be sometimes fresh and bleeding, which is very rarely the case.

ANATOMY OF THE WHALE.

It was discovered by John Hunter, the celebrated anatomist, that it is by a most remarkable modification of the arterial system, that the whale, breathing nothing but atmospheric air, is enabled to remain so long under water, though we must doubt its capacity to exist for days beneath the surface. This consists of an almost infinite circumvolution of arteries forming a plexas of vessels filled with oxygenated blood, situated under the pleura, and between the ribs and on each side of the spine.

The general internal anatomy of the whale is not perfectly known. Our principal knowledge of it is derived from Hunter's dissection of a small whale, cast upon the coast of Yorkshire in 1787, and the very few notes made by intelligent whaleman since.

THE HEART

is broad and flat, and, except in size, in its general structure resembles the heart of other animals, and where the parts are similar the distribution is likewise similar. The aorta forms its usual curve, and sends off the carotid and sub-clavian arteries.

To one accustomed to view the organs of smaller animals, the vast size of those of this huge animal seem almost beyond comprehension. Thus the heart and aorta of the *small* whale which Hunter dissected appear prodigious. The heart could not be contained in a large tub, and its aorta measured a foot in diameter, and probably discharged from ten to fifteen gallons of blood at a stroke. Judging by the universal law of proportions, says Cheever, the aorta of the largest whales can be little less than the bore of the mainpipe of the Croton water works, and the water rushing through that pipe must be inferior in impetus and velocity to the blood gushing from the whale's great heart. The whale's liver is very voluminous, but the spleen of no great extent.

FOOD.

The only food of the sperm whale is generally thought to be the sepia octus or sea squid or cuttle fish, though there is a story told of one that ejected from its stomach, when dying, a fish as large as a salmon, and they are said to swallow small fishes by the quantity. There can be no doubt, however, that the cuttle fish furnishes its chief food. Some of the tribe grow to great size, and, large as the whale is, furnish it with no contemptible mouthful. After the sperm whale is wounded mortally, and when in his last struggle, he frequently throws up the contents of his stomach, which in the hundreds of instances in which it was examined by him, we have the authority of Captain McKenzie for saying, "It never, so far as he was able to discover, contained anything but squid," and "which he frequently found," in delicate little mouthfuls, "of the bulk of a barrel," disproves an often-repeated remark of naturalists, that "the whale, though the largest of animals, is the smallest of eaters."

FEEDING.

The manner in which the sperm whale takes its food is curious and affords a singular specimen of animal ingenuity or instinct. While the whale is making little or no progress through the sea, it extends its capacious mouth by dropping down the lower jaw and exposes the white lining of its interior—which seeing, the squid darts swiftly in. Whales have been often seen in this position, and it is known that the squid will spring at white and shining objects in the sea, for it is in that way that they are caught. I have seen them caught in this way near Mahon. The fisherman there walks along the beach with a small looking glass held over a dip net; the squid attracted by the glass in which they are reflected, come to the surface to examine it and are caught in the net. Except for his strategy the whale might seek other food, for the squid is extremely active, and if pursued could by frequent evolutions easily evade the pursuit of the whale. When a sufficient quantity of squid has entered his capacious mouth, our huge friend rapidly closes his jaw and swallows its contents at his leisure. I have seen the Chinese fishermen adopt a similar expedient, using a white and shining board and torches to attract small fishes to jump into their boats.

TIMIDITY OF WHALES.

The sperm whale is exceedingly timid, and a shoal of porpoises or even a single seal approaching, has been known to start a whole herd running in the greatest consternation. Almost in direct contradiction to this fact which is testified to by numerous whalemen, Cuvier says, "So terrified are sharks, dolphins and seals, etc., at the sight of a cachalot, that they hurry to conceal themselves from him in the sand or mud, and often in the precipitancy of their flight dash themselves against the rocks with such violence as to cause instantaneous death. It is not therefore surprising" he adds, "if the myriads of fishes on which this tyrant preys, are struck with the most lively terror at his presence. So powerful is this feeling that the multitude of fish which seek with avidity the dead carcasses of other cetacea to devour, do not dare to approach the body of a cachalot when it is floating lifeless." If we may believe other and more recent authority, and the ob-

MISCELLANEOUS.

[From the New York Telegram.]

CLEOPATRA

OR THE

QUEEN OF SHEBA'S BEAUTY

WAS BUT SKIN DEEP.

The renowned Queen of Sheba, with all her royal pomp, magnificent apparel and brilliant retinue, would never have appeared within the presence of the grandest of the monarchs of the past, had she not also possessed that which is the crowning glory of the female person—a skin unchallenged for its Oriental softness and its almost transcendental purity. Cleopatra, holding emperors at bay, and ruling empires by her word, had quickly lost her charm and power by one attack of blotches, or of pimples, or of horrid tan and freckles.

WOMAN RULES THE WORLD

By her beauty, not less than by her purity of character, loveliness of disposition, and unselfish devotion. Indeed, in the estimation of perhaps too many men, beauty in a body takes precedence over every other consideration. Beauty thus forms an important part of woman's "working capital," without which too many, if not bankrupt in what relates to influence within the circle where they move, are powerless for great good. Hence, we see not only the propriety but the duty of every lady preserving with zealous care that which to her is essential to success and influence and usefulness in life. And, since "beauty is but skin deep," the utmost care and vigilance are required to guard it against the many ills that flesh is heir to. Among the great and annoying enemies of beauty,

OF EITHER SEX,

As well as of comfort, happiness and health, are those pestiferous and horrid skin diseases—tetters, humors, eczema (salt rheum), rough and scaly eruptions, ulcers, pimples, and all diseases of the hair and scalp. For the cure of all these, Dr. C. W. Benson, of Baltimore, after years of patient study and investigation devoted to diseases of the skin, at last brought forth his celebrated SKIN CURE, which has already, by its marvellous cures, established itself as THE great remedy for all diseases of the skin, whatever be their names or character. Its success has been immense and unparalleled. All druggists have it. It is elegantly put up, two bottles in one package. Internal and external treatment. Price, $1.

Sick headache, nervous headache, neuralgia, nervousness, paralysis, dyspepsia, sleeplessness and brain diseases positively cured by C. W. Benson's Celery and Chamomile Pills. They contain no opium, quinine, or other harmful drug. Sold by druggists. Price: 50c. per box, $1 for two, $2 50 for six—postage free. Dr. C. W. Benson, Baltimore, Md. C. N. CRITTENTON, New York, is Wholesale Agent for Dr. C. W. Benson's Remedies. ap6 SaTu 3t 4p

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AMUSEMENTS.

HAVERLY'S CALIFORNIA THEATRE.

MR. J. H. HAVERLY.................. ....Proprietor.

LAST MATINEE AND NIGHT!
To-Day—SATURDAY—To-Day.
MATINEE........OLIVETTE!...........NIGHT
MATINEE........ ....NIGHT
Sunday Evening..........................May 7th,
BENEFIT
JOHN HOWSON!
Presenting a Triple Programme.

The Drama, VIOLIN MAKER ..OF.. CREMONA!	GRAND OLIO 50 VOLUNTEERS.	COMLEY-BARTON OPERA COMP'Y IN THE CHIMES ..OF.. CARMODY!

Monday Evening.........................May 8th,
ALDRICH and PARSLOE!
"My Partner." "My Partner." m6

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CHAS. E. LOCKE..............................Proprietor

TO-DAY, TO-DAY, TO-DAY,
ONLY MATINEE
... OF....
PŒNIX! PŒNIX!
MILTON NOBLES!
MILTON NOBLES!
....AS....
THE PHŒNIX.
To-Night and Sunday, Last Chance to See
☞ THE GREAT FIRE SCENE! ☜
Monday...................... ....May 8th,
For One Week Only,
MAN OF THE PEOPLE!
MILTON NOBLES.........................as Jack Ryder
☞ Box Sheet Now Open. my6

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ARCTIC DISASTERS.

Other Expeditions Which Have Resulted Unfortunately of Late Years.

Since 1869 three expeditionary ships have been abandoned in the ice. The list begins with the Hansa, then follows the Polaris and the Tegethoff. It will be remembered that in 1869 the second German North Pole expedition started to reach the supreme spot by the then untried way of Greenland's eastern shore. The expedition started in two ships—the Germania and the Hansa. The vessels sailed in company from Europe and made the eastern coast of Greenland, along which they were to progress Poleward, opposite the island named on the charts "Liverpool Coast," in north latitude 71 deg. The Germania had good luck, and survived for a long career of usefulness; but the Hansa was nipped off the Liverpool Coast, and had to be abandoned. Her crew had ample time to strip her of all her belongings, and late in October, 1869, took to the ice, and drifted from 71 deg. south to 61 deg., a distance of 600 miles, a journey which occupied until May, 1870. During this time they made a trifle over three miles a day. When they abandoned the floe, near the southern extremity of Greenland, they took to their boats, and weathered Cape Farewell, and made the best of their way around to the west coast of Greenland, up which they sailed until they arrived at Fredericksbaab, where they were succored by the inhabitants.

LOSS OF THE POLARIS.

The next unfortunate expedition in point of time was that in the Polaris, under the command of the lamented Captain Hall. About six o'clock on the night of the 15th of October, 1872, the vessel was nipped in the ice, which was very heavy, and the vessel groaned and creaked in every timber. At this time the engineer came running from below among the startled crew crying that the vessel had started a leak aft and that the water was gaining on the pumps. Soon everything was confusion. The men seized everything indiscriminately and threw it overboard. It was a dark night and the stuff thrown overboard could scarcely be seen and much of it was lost on the broken ice. A party of nineteen while attempting to gather together the material thrown overboard found that the ice had broken away and that they were on a piece of floe about four miles in circumference, the main floe to which the ship was anchored having been crushed between the bergs and broken up. On this piece of floe nineteen souls all told made the awful journey down through Baffin's Bay and Davis Straits. The ice had almost dwindled to nothing, when they were picked up off the Labrador Coast in April, 1873.

LOSS OF THE TEGETHOFF.

The next year saw the loss of another Arctic expeditionary ship, which had been fitted out with all the care science and experience could suggest for such work. This was the Tegethoff, despatched under Austrian auspices, with Lieutenant Weyprecht of the navy, and Lieutenant Payer of the army, in charge of the sea and land parties respectively. The Tegethoff left Europe in 1872, and reached Franz Josef Land in the Fall of that year, and went into Winter quarters south of Wilczek Island. From this position she was never released for two years, and finally, on the servation of daily observers, squid is their principle article of food and the myriads of small fishes have little to fear from them, and a dead body of a cachalot attracts a troop of sharks, albatrosses and other bustards of the sea who feast and revel upon it at the cutting in.

AGE OF WHALES.

We have no means of ascertaining the age of the sperm whale. Cuvier thinks it might reach a thousand years, since a carp lives two hundred, but the received opinion is, that they live from forty to fifty only. If I might venture an opinion, they are much longer lived, or would be, if left unmolested by their human enemies. Captain McKenzie mentions his having extracted the barbed end of a harpoon from the back of a large whale, inclosed nicely in the blubber, and the wound entirely healed, where it had been lodged fourteen years. This was ascertained by the blacksmith's initials on one side of the iron, and the captain's on the other. This whale yielded but fifty barrels of oil, and exhibited no marks of old age. Captain McKenzie says he has seen animals with their teeth worn down to the jaw and level with the gum by mastication, and others with their teeth rotten and decayed, their bodies covered with wrinkles and furrows, and having a wayworn appearance, evidently the effect of slow but progressive deterioration.

STORY OF A HARPOON.

Old Captain Bunker of New Bedford, a name famous in whaling annals, once struck his iron into a whale, which broke loose, and five years after, and in the same latitude, but full eight hundred miles to the westward, he had the gratification of recovering his harpoon by the capture of the same animal.

AN OLD WHALE.

Captain Gardner, in the ship Balæna off Owyhee, once secured a large sperm whale which yielded one hundred and two barrels of oil. The teeth of this individual were worn level with the gum, but otherwise he exhibited no signs of extreme age, but, on the contrary, seemed in the enjoyment of a vigorous health and life.

A SLEEPING WHALE.

In 1836 I saw a large sperm whale just within the Straits of Gibraltar, lying apparently asleep on the surface of the sea, which broke and rippled on his motionless body, his huge sides were incrusted with barnacles, and just behind his ears a harpoon was observed sticking up, with a fathom or two of line attached.

[For the Transcript.]

Notes on Whales and Whaling. XXI.

Whales are no more exempt from disease than lesser animals, and we imagine it would require something more than homœopathic doses to restore their disorganization—to cure, for instance, the dyspepsia occasioned by two or three hundred pounds of ambergris, or to purify the fifteen or twenty gallons of blood passing through their hearts at every stroke.

A BLIND WHALE.

Sperm whales have been taken that were totally blind, both eyes being completely disorganized, and their orbits occupied by fungous masses, which, protruding considerably, render it certain the animal had been deprived of vision for some time. As the blind whales are usually as fat as seeing ones, the loss of sight would not seem to incapacitate them from procuring their food.

TOOTHACHE AMONG WHALES.

Sperm whales have also frequently a crookedness of the lower jaw, which, according to whalemen, is caused by their fightings. They are subject to another malady for which I think they will readily receive the general sympathy of the human family, and that is the "jumping toothache." It appears to operate upon their nervous system much as it does upon mankind, rendering them crabbed and fractious, as the following extract from a whaleman's journal, which I find in a recent paper, proves. The journalist says—

While we were cruising on the "off-shore" ground, a violent commotion in the water, about two miles ahead, resembling breakers, attracted attention. It continued unabated until within fifty rods of it, when a sperm whale—for such it proved to be—threw his entire body into the air, and fell back into his native element with a tremendous report. Of course the yards were backed, and the boats lowered, but several minutes elapsed before it was deemed prudent to approach the monster. Finding, however, that he had no idea of becoming quiet, we advanced with caution, and succeeded in securing one iron firmly in his back, which rendered him more restless. Giving him plenty of slack rope, we removed to a respectful distance, hoping he would sound, or retreat; but he was not disposed to do either. So taking our oars we pulled sufficiently near to give the boat header an opportunity to lance him. He seemed to be aware of our intention, for he returned and rushed towards us with the design of giving us "a fawing," which we narrowly escaped. During the next half hour he chased us, and it was with difficulty we avoided him. When near us he turned on his back and raised his jaw, bringing into view two handsome rows of ivory. Among terrific objects, an enraged whale holds a prominent place.

An hour passed in unavailing attempts to accomplish the desired object, the whale becoming more furious and the hope of conquering him growing fainter. At length, while the attention of the monster was directed towards us, the mate came upon him in an opposite direction and dealt him a death wound, relieving us of a burden of anxiety, which indicated itself in the pallid countenances and nervous agitation of the boat's crew. He was very reluctant to yield, and the death struggle was long and violent. If a cat has nine lives, as is sometimes remarked, that fellow had nineteen. Before night his blubber was in the try pots, and his jaw was stripped of its covering. On extracting his teeth the cause of his singular movements was revealed. *The cavities in several places contained a large number of worms, an eighth of an inch in length.* The teeth were perfectly sound, but the marrow or nerve of the tooth, which was an inch in diameter at the lower extremity, was in many of them entirely consumed by the insects that seemed to have bred there.

The agony of such a torture, multiplied in proportion to size, may be imagined.

THE CHIEF NATURAL ENEMIES OF THE WHALE, man being considered an unnatural one, though probably the most destructive of all, are the swordfish, thresher and killer. Besides these there is an insect of the family of crustacea, commonly called the whale louse, that very much infests and annoys this immense animal—another illustration of the fable of the lion and the mouse. It attaches itself so strongly to the skin that it cannot be removed without tearing it. It attaches itself to the most sensitive parts, and where the animal cannot so easily rid itself of the annoyance by rubbing. Its bites are deep and painful.

Other insects swarm upon the whale's body, which is a floating living continent of flesh, and multiply, particularly on the tongue to such an extent as almost completely to eat it through, and cause the death of the animal. These insects attract sea birds to the broad back of the whale, which are partial to such vermin, and hunt them there without constraint or ceremony, performing a useful and agreeable office in ridding him of his troublesome guests.

[For the Transcript.]

Notes on Whales and Whaling. XXII.

THE SPERMACETI OR SPERM WHALE.

The cachalot or sperm whale, *Physeter macrocephalus* Shaw (*Catodon macrocephalus* Lacep.) is the largest as well as the most valuable of the southern whales. By Americans it is universally known as the sperm whale. By the English it has been sometimes called the anvil-headed whale. The French call it the cachalot, and the Germans the pottfisch.

The only writer who has undertaken anything like the natural history of this animal is Mr. Beale, the surgeon of a whaleship which returned to England in 1835. He says—

On returning to England after completing an engagement which occupied upwards of two years in the South Sea whale fishery I was surprised to find that when the knowledge of every useful and interesting subject is so widely diffused, so little should be generally known of the natural history of almost the largest inhabitant of our planet, the great sperm whale. In fact, till the appearance of Mr. Higgins's admirable print (published that year) few with the exception of those immediately engaged in its capture had the most distant idea of its external form. Of its manners and habits people in general know as little as if the capture had never given employment to British capital, or encouragement to the daring courage of our hardy seamen. The term whale fishery is associated with the coast of Greenland, or ice-bound Spitzbergen and the stern magnificence of Artic scenery; few connect the pursuit of this "sea beast" with the smiling latitudes of the South Pacific, and the Coral Islands of the Torrid Zone, and fewer still have any more destined conception of the object of this pursuit than that it is a whale producing the substance called spermaceti, and the animal oil best adapted to the purposes of illumination.

THE SPERM WHALE.

Believing with Mr. Beale in this general ignorance respecting this particular animal, this huge monster of the deep, with the assistance he has afforded, and much in addition gathered from sources too numerous to particularize, and some little observation of my own, I propose to give some account of the shape, manners, customs and abiding places of the great sperm whale or cachalot, which affords us these valuable commodities, sperm oil, spermaceti and ambergris.

WHALERS AND NATURALISTS.

Whalers know only one description of this animal, and in the opinion of the accurate Cuvier it is the only one that exists; certainly if the many kinds distinguished by the names of the round-headed or lesser cachalot (*Physeter catodon*), cylindrical cachalot, (*Physalus cylindricus*); sharp-nosed cachalot (*Physeter microps*), and high-finned cachalot (*Physeter tursio*). None but the last, (which is said to be an inhabitant of the north seas, having a tall dorsel fin, and attaining a length of one hundred feet,) differ in the descriptions given of them from the ordinary sperm whale of the middle or tropical and temperate seas.

NANTUCKET EXCITED.

The first sperm whale known to the inhabitants of the sandy island of Nantucket, elsewhere described, was found dead, ashore, on the southwest coast, and caused no little excitement. Some demanded a part of the prize on one pretence, some under another, and all were anxious to see so strange and huge an animal. The natives claimed the body because they found it; the whites, who were informed by the natives of their discovery, by a right, comprehended as they affirmed, in the purchase of the island by the original patent, and an officer of the crown made his claim and pretended to seize the animal in the name of his Majesty, as being property without any particular owner. After considerable discussion the matter was finally settled by the white inhabitants who first found the whale sharing equally the prize. The teeth, considered very valuable, had been extracted by a white man and an Indian. The sperm produced by the head was esteemed valuable for medical purposes and applied both internally and externally in various disorders. It was sought for with such avidity as for a time to be worth its weight in silver.

THE FIRST SPERM WHALE

killed by Nantucket whalers was about 1712, when one Christopher Hussey, cruising along the shore for right whales, was blown off by a north wind, and falling in with a shoal or school of sperm whales killed one, which he towed triumphantly into port. Mr. Atkins of Boston, in 1720, was the first person that went out purposely to take sperm whales—an adventure little understood by him at the time, as he asserts that, "Females or cows are never taken," which later experience has abundantly refuted.

THE CACHALOT

is indeed gregarious in its habits, and herds or shoals or schools or pods, as they are indifferently called, containing from twenty-five to a hundred or more individuals are frequently seen. One writer, indeed, asserts that he has seen herds of five or six hundred, but probably what he mistook for one herd were two or three schools or shoals united.

A SCHOOL

may contain from twenty to fifty cachalots, and is composed of females, or cows, and their young, and associated by at least one adult male, or bull of the largest size. The smaller associations, or pods, consist of young or half grown males, which have been driven from their maternal schools, and sometime of large and adult males. When a solitary or lone whale is observed, it almost invariably proves to be an *old* bull. When two or more schools coalesce, and form a very large assemblage, it is known and designated as a "body of whales." On some tracks of ocean, peculiarly favored as their haunts, the number of sperm whales seen together is beyond all reasonable conception. At particular times and places, the ocean may be seen for miles around the ship strewn with a constant succession of spouts, denoting a greater number of cachalots than would fill three or four ships with oil.

Though found in every temperate sea and clime, they have been taken in the Mediterranean, in the English Channel, and an individual in the Thames; yet the great nursery of the sperm whale is the vast Pacific, where their haunts are found from coast to coast, their limits that of the ocean itself. The males are more frequently found in high or cool latitudes, and the other sex in the milder climates. A tropical region suits these animals the best, and they seek bays and islands and coral beds and reefs in vast shoals to bring forth their young. Contrary to the habits of every other kind of whale, their principal haunts, and where they are sought after with the greatest success, is in the line currents which extend from the equator to about 7° north and south latitude, and are found in the greatest abundance within the first thirty-five degrees of longitude on either side of the equator, both in the Atlantic and Pacific. It is only a straggler from a herd that is seen beyond this parallel.

THE GEOGRAPHICAL RANGE

of this species is indeed so wide that no part of the aqueous globe, excepting the Polar seas, is altogether inimical to their habits, or free from their visits. In the Southern Hemisphere, they are known to extend as high as between latitude 60° and 70°, or off the shore of the South Shetland Isles. In the Northern, their boundary can be fixed with more accuracy at about latitude 60° 5'. Although the sperm whale has been obrerved on the south coast of Greenland, and as high as the corresponding latitude off the American and Asiatic coasts, it is unknown to the whalers of the Arctic Ocean.

Large parties of these whales have been remarked to affect particular spots at distinct times; though it has not been ascertained whether they are sufficiently regular to be considered as seasonable; when seasons are spoken of, it applies less to the periodic presence of the whales in the regions referred to, than to the convenience of whale ships in regard to the weather, etc. Thus the "Japan cruise" in the Pacific commences with the spring months, April and May, and concludes with the autumnal months, September and October, or when the accession of inclement weather may be expected in that region; although there is no reason to doubt that whales continue in its waters during the entire year. While driven by winter weather from the north, the whaler occupies his time in the more genial climates of South America and the equator, or takes the off-shore season. The same remark applies to the sperm fisheries in the Indian seas, where its seasons are equally influenced by the variations of monsoons.

Nevertheless the natives of the Society Isles expect to see the cachalot around their shores only during the months of April and May, or as they express it, "when the *vis* (hog plums) are ripe," and whalers consider that from September to December are the most profitable months for cruising on the equator.

Vast tracks of ocean may be cruised over without the slightest trace of the sperm whale being perceived, whilst other and often very limited extents will exhibit the species in great abundance. Much of this apparent caprice, however, depends upon natural causes. Powerful currents on the shore intervening between two currents setting in opposite directions, are the favorite resort of the sperm whale—and the favorite resorts of this whale are doubtless where its food is to be found in the greatest abundance as swept together by these local streams.

Hence wheresoever currents are denoted by these commotions marine animals, as the floating shell fish, Ianthine, Hyalaea and Cleodora or other mollusks, as sea lizards (Glaucus) Vellellær, Porpitæ, etc., with myraids of medusa, forming what the whalers term "thick water," cachalots may seasonably be expected; and their appearance often coincides in a remarkable manner with the presence of such natural indications.

They are rarely if ever seen

ON SOUNDINGS,

though often seen and taken near the land, but in this case there are always a bold shore and great depth of sea. In seeking bays and still water for their lying-in time, or to bring forth their young, their peculiarity in this respect, from all other whales, is still marked. They never visit shallow water, but only go where it is blue and deep, and under the lee of islands and reefs. The bays of the great Island of Albemarle, of the Galapagos group, is often visited by large shoals of cows for that purpose—the waters in those bays being of great depth, and as blue as the Gulf Stream.

When, half a century ago, our ships first ventured into the Pacific in quest of sperm whales, the coasts of Chili and Peru abounded in them, but with the increase of the whaling fleet, these poor, persecuted animals have been, through the superior sagacity of their human enemies, in a measure, killed and driven from their haunts, so that later adventurers, to insure success have been forced to extend their cruisings into farther and comparatively unknown seas, until one unexplored track after another has been traversed, and from Chili to New Holland, from California to the Japan Islands and China Seas, a square expanse comprehending above 4800 miles of latitude and more than 6000 miles of longitude, there is not a spot of any extent that has not been furrowed by the keel of an American whaler.

THE SPERM-WHALE FISHERY IN THE PACIFIC

was opened in 1788 by the enterprise of a London merchant, Mr. Enderby, who that year fitted out the Amelia, Captain Shields, and sent her into the Pacific. He was richly rewarded. The whales were found so abundant that the ship returned at the end of six months with a full cargo. Now, with a much wider range of the same ocean, from five to six years are requisite to a like success. Owing to the increasing

SCARCITY OF THE ANIMAL

vessels are seldom now, as then, fitted out exclusively for the sperm fishery, but unite with it the pursuit of the right whale. Indeed it would seem the active pursuit of sperm whales is fast leading to their entire extinction. The average number of barrels of sperm oil imported into the United States for the ten years from 1842 to 1852 was one hundred and fifty thousand. Allowing that forty barrels is the average yield of each whale, that amount would require the annual destruction of three thousand seven hundred and fifty of these huge animals. This one fact, without any allowance for those captured by other nations, or that sink before they can be cut in, or that are lost after killed, or that are destroyed by their natural enemies in the deep, the sword fish, thresher and perhaps cuttle fish, on which they feed, or sea serpent, with the other fact that they produce but one calf at a birth, will show how fast they are being extirpated. Judging then by the past, before the end of the present century it seems quite likely that hunting these animals at sea will be no more prosecuted as a business than hunting deer on the land.

[For the Transcript.]

Notes on Whales and Whaling. XXIII.

The whale's wanderings and migrations from place to place are no doubt in search of food, as they are often seen in large bodies moving quickly all in one direction, when if followad for a few days, they will be again met with, feeding and lying quite still, but headed in different directions. This is considered a time favorable to their capture, and the bold hunter who at such times attacks them is often rewarded by the capture of several of a herd, before it is so harassed as to abandon the feeding ground.

MIGRATION OF WHALES.

That the sperm whale migrates from sea to sea, from ocean to ocean, is a well ascertained fact. They have frequently been met with off Cape Horn and the Cape of Good Hope, making their passage from ocean to ocean, and instances are known of their having been harpooned on the Japan coast, and having broken the line, being afterwards captured on the coast of Chili, when by the marks on the harpoon with which they had been struck off Japan, and which was found sticking in them, they were easily identified. One instance, if not more, is also recorded of a whale of this species which was struck on the coast of Peru, being subsequently taken upon the coast of the United States.

Mr. Cheever, to whose book on the "Whale and his Captors" I am largely indebted, notes in his journal after passing Cape Horn, "Latitude 36° S. In the afternoon, a school of sperm whales passed us, making for the Pacific with all the speed of flukes and fins. They showed themselves about a quarter of a mile off, and three boats were lowered and sent in pursuit, but they never let us see them again, it being the habit of the sperm whale to stay under water much longer than the right whale."

The following narrative of the attack upon and final capture of a remarkably vicious whale, by a boat's crew of the ship Hector of New Bedford, was furnished the Edgartown Gazette, in 1853, twenty years after the occurrence, by Captain Thomas A. Norton, who was first mate of the Hector at the time of the capture:

In October, 1832, when in lat. 12 S., lon. 80 W., the ship ninety days from port, we raised a large whale. The joyful cry was given of "There she blows!" and everything on board at once assumed an aspect of busy preparation for the capture. The boats were lowered, and the chase commenced. When we got within about three ships' length of him he turned and rushed furiously upon us. He struck us at the same moment we fastened to him. He stove the boat badly, but with the assistance of sails, which we placed under her bottom, and constant bailing, she was kept above water. The captain, John O. Morse, came to our assistance. Told him he had better keep clear of the whale, but he said he had a very long lance, and wanted to try it upon the rascal. Captain M. went up to the whale, when all at once he turned upon the boat, which he took in his mouth, and held "right up on end" out of the water, and shook it all to pieces in a moment. The men were thrown in every direction, and Captain Morse fell from a distance of at least thirty feet into the water. Not being satisfied with total destruction of the boat, he set to work and "chewed up" the boat kegs and lantern kegs, and whatever fragments of the boat he could find floating on the water. At this stage of the "fight" I told Captain Morse that if he would give me the choice of the ship's company I would try him again. It was desperate work to all appearance, and up to this time the vicious fellow had had it all his own way. The captain was in favor of trying him from the ship, but finally consented for us to attack him again from a boat. With a picked crew we again approached the whale, now lying perfectly still, apparently ready for another attack, as the event proved. Seeing our approach, he darted towards us with his mouth wide open, his ponderous jaws coming together every moment with tremendous energy. We gave the word to "stern all," which was obeyed in good earnest. As we passed the ship, I heard the captain exclaim, "there goes another boat!" She did go, to be sure, through the water, with all speed, but fortunately not to destruction. The monster chased us in this way for half a mile or more, during most of which time his jaws were within six or eight inches of the head of the boat. Every time he brought them together the concussion could be heard at the distance of at least a mile. I intended to jump overboard if he caught the boat. Told Mr. Mayhew, the third mate, who held the steering oar, that the whale would turn over soon to spout, and that then would be our time to kill him. After becoming exhausted he turned over to spout, and at the same instant we stopped the boat and buried our lances deep in "his life." One tremendous convulsion of his frame followed, and all was still. He never troubled us more. We towed him to the ship, tried him out, and took ninety barrels of oil from him.

When we were cutting him in we found two irons in his body marked with the name of the ship "Barclay," and belonging to the mate's boat. We afterwards learned that three months before, when the same whale was in lat. 5 S., lon. 105 W., he was attacked by the mate of the ship "Barclay," who had a desperate struggle with him, in which he finally lost his life.

A WHALE'S REVENGE.

Captain Norton says a whale was never before known to attack a boat before being struck, and attributed this whale's action to his being evidently much troubled with the Barclay irons left in his body, and took this first opportunity to revenge himself. Captain Norton, at the time of the adventure with this whale, had "seen some service," but he freely confessed that never before nor since (though he has had the buttons bitten off his shirt by a whale) had he come in contact with such an ugly customer as this "rogue whale." He seemed possessed of the spirit of a demon, and looked as savage as a hungry hyena. One can imagine the effect such an encounter would have upon a crew of "green hands." During the frightful chase of the boat by the whale their faces were of a livid white, and their hair stood erect. On their arrival at the first port they all took to the mountains, and left whaling to others who had not had a similar experience.

CONTEST WITH A SPERM WHALE.

The following is a graphic description of a contest with a sperm whale, evidently written by an eye-witness who had not yet become accustomed to the sport:

We are now within a cabin's length of the nearest whale, a score of boats close in our wake, and another ship's boat lapping upon us. Grim John Daggett, the mate, seemed going mad, his eyes starting from their sockets, teeth clenched, and bareheaded. I could see the veins in his forehead and great brawny arms swell almost to bursting, as the fever heat of the chase came on. I pulled the after oar, and he guided the boat with one hand, his other at every stroke caught my oar, throwing it against my breast, while its long blade quivered like a piece of spring steel. Still the other boat gained—creeping slowly abreast of us.

"Pull, men—oh! if you love money, pull! Don't let that boat pass us! Oh! spring, every mother's son of you! Boys, if you love me pull? A keg of terbaccer among ye if we get up to this whale. Ah! he blows! Steady now, men—not a whisper, if ye want to live. One more stroke—stand up, harpooner. Don't ye miss him, boy! Look out when he rounds up. Cool, my boy—cool! Give it to him!"

Down under my oar blade I saw a huge black body, and the boat struck something harder than a wave.

"Starn all! starn all, I tell ye!" thundered grim old Vickings; and I knew that we were fast. Heavens! how the line flew out, as maddened with pain the monster plunged downwards! One—two—three hundred fathoms of line out, not a sound in the boat save the crackling of the line as it runs smoking along the loggerhead, the mate tightening it every pound it would bear—every man braced firm in his seat, grasping an oar and waiting. But now the slender cord slackened—for, tired and breathless, our prey is coming up.

As I leaned over the gunwale, the water as clear as crystal, I fancied I could see to immense depths in the tranquil element. Is it possible a more than fabled giant is coming thence to battle with us? And in a few moments will it be his blood or ours that shall turn this pellucid blue to turbid crimson? A shout startled me, and looking around, there, lashing the sea to snowdrifts, rolled our prey. And what an antagonist! At least eighty feet long, of huge girth, he lay on his back (the favorite way of fighting of the cachalot), his head depressed, and the jaw, full fifteen feet long, elevated in the air, and bristling with sharp, gleaming white teeth. His roaring was fearful. Down to our oars, and in a moment our mate has his lance at work. Keen as a razor blade, that long, thin lance found its way through hide and sinew, past piled-up flesh and rib, burying its head in the very vitals of the monster. His throes of agony were terrible and pitiful. At every lance thrust his huge body would quiver along its entire length, and the bright red blood, hot from his heart, rush in a torrent from his spiracle. In vain he turns upon us—the well-trained crew slip the boat out from under his very jaw, as he shuts it down to crush us, and as he rushes by again the lance cuts its cruel way.

No play, this kind of hunting. No long-ranged rifles fired from safe distance. A grand hand-to-hand combat, grappling the greatest living animal in a life-and-death struggle. No place in that boat for weak nerves. These be earnest men, snatching subsistence for families from out of the sea, and conquering its king. He strives to escape, but the iron is galling; and, spouting ten gallons of blood at every discharge, he is growing weak. The blood has covered us, and the old mate looks like the butcher he is. Ah! old fellow, your enemies have closed upon you, and no fear. It is your life or theirs, and man triumphs over the brute.

But now the *coup de grace* is given, and he is dying. On one side swimming blindly he sweeps gradually around a narrowing circle, until at last heading toward the sun, as vision grows more and more dark, a mighty throe shakes the huge form, a convulsive shudder as in a last vain struggle for life, and a huge, unwieldly mass attests man's supremacy upon the water as well as upon the land.

While we had been at work the other boats had not been idle. When our whale reappeared from his first plunge the whole school had surrounded him, or, in whaler's parlance, "brought to"—for there is a deal of honest sympathy in a school of sperm whales.

A fleet of boats dashed in, and, each quickly selecting his prey, commenced the work of death. The scene was a perfect pandemonium—the whales entangled in many lines, striving to escape; here one on his back, his great bristling jaws elevated, and lines attached to other whales wound round it; there another, trying to fight his way clear of the mass, dealing tremendous blows with flukes and fins. The surrounding boats press upon them, the lances flashing in the sunlight, the shouting crews covered with blood, wild with excitement and joy. The waves caught a bright red tint; we were floating in a sea of blood.

But one after another, breaking away from the entangled mass, went into his "flurry," dragging after him the boat, the officers still plying the lance—the monster, forsaken by the school, yielded, and turned "fin up." Our ship secured three of the prizes, among which our boat captured the king, being what is termed a "hundred-barrel feller." At noon we had them alongside the ship, secured them with chains, and made sail to gain an offing before the work of cutting in.

PERILS OF THE WHALE FISHERY.

On the coast of Peru, 23d June, 1849, in latitude 3 degrees N., longitude 104 W., while cruising for whales, a shoal of sperm whales appeared in sight from the "Janet," and three boats lowered in pursuit. Capt. Hosmer's boat's crew consisted of himself, Francis Hawkins, 3d mate; Edward H. Charlez, Joseph Cortez, Daniel Thompson, and James Fairman, seaman. It blowing fresh at the time, the boats soon separated, each having made fast to a whale. After Capt. Hosmer had succeeded in "turning up" his whale and was towing him to the ship, from some inadvertence on the part of the third mate in putting about, the boat capsized, with loss of boat keg, lantern keg, boat bucket, compass, paddles, etc. The crew succeeded in righting the boat, and lashed the oars to the thwarts across the boat to prevent her from overturning, she being filled with water, and the sea continually breaking over her.

Two waifs, or flags, were immediately set as a signal of distress, the other two boats being in sight at a distance of about one and a half miles. Captain H. saw the other two boats take their whales alongside of the barque, which was then kept off in the direction for his boat, but to his surprise and horror, when within about one mile of him they kept off on another course until sundown. The crew of the captain's boat then got on to the whale alongside and tried to bail the boat, but could not succeed. They then cut the line attached to the whale, and succeeded in setting some pieces of the boat sail and steered towards the barque, then about three miles distant. During the night they saw a light at intervals, but in the morning the barque was at about the same distance off. Every expedient was resorted to by making signals to attract the attention of those on board the barque, but in vain. Saw them cutting in the whales, and apparently indifferent to the fate of their comrades. In this perilous condition the unfortunate boat's crew made another attempt to bail the water from the boat, but owing to their consternation they did not succeed. They then continued on their course as before, hoping to regain the barque, but soon found that she receded from them, and it was then determined to put about to the wind and remain, whatever the consequences might be. On the second morning, the weather being more favorable, all the whale craft was thrown overboard, and another attempt was made to bail the boat, which resulted in the loss of one man and without accomplishing the purpose. The effort was again renewed in the afternoon, the weather being yet more favorable, and they finally succeeded in freeing the boat from water, but with the loss of another of her crew; all on board having been up to their arms in the water during the last forty-eight hours. Two of the survivors were seized with delirium, all of them having been without a morsel of food or drink, and suffering painfully from thirst. Thus disabled, no one on board being able to ply at the oars, and with only a small fragment of the boat's sail remaining, it was determined to make for Cocus Island, on the Peruvian coast, *a distance of about one thousand miles*, as the nearest land. Accordingly the piece of the sail was used to the best advantage, and the ceiling of the boat was torn up and also employed as a wind propeller, and steering in a northeasterly direction.

Nothing occurred worthy of remark until the seventh day, the crew having in the meantime been without a particle of food or drink, and not a drop of rain having fallen. In this dreadful state of suffering it was mutually agreed to cast lots as to which of the number should be sacrificed to prolong the lives of his companions, and the unfortunate victim upon whom the lot fell met his fate with perfect resignation and willingness. At the close of the day a shower of rain proved a very great additional relief. Being without compass or instruments of any kind, Captain H. was compelled to rely entirely upon his judgment respecting the course, aided only by an occasional glimpse of the north star and the rolling swell of the sea from the south. On the eighth day another of the number died from exhaustion. It was found necessary to pursue a more northerly course in the hope of rain, none having fallen during the last four days. On the next day were favored with another shower, and this benefaction was followed by the remarkable circumstance of a dolphin leaping from among its finny companions directly into the boat. Several birds also approached so near to the boat as to fall a prey to the necessities of the crew, administering greatly to their relief. On the 13th of July, land was discovered in an easterly direction, which proved to be Cocus Island (uninhabited), lying lat. 5 degrees 27 min. N., lon. 87 15.

Captain H. and the other survivors succeeded in reaching it, but in an almost helpless condition. They, however, secured a pig, and drank its blood, which revived their exhausted strength, and also obtained a plentiful supply of birds and fresh water. After remaining two days upon the island they were overjoyed by witnessing the approach of a boat, which proved to belong to the ship Leonidas, whaler, Captain Swift then lying in Chatham Bay, for the purpose of procuring wood and water, and were relieved from their dreadful sufferings by being taken on board the ship and treated with every possible attention and kindness.

Those who perished on board the boat, were Francis Hawkins, 3d mate, of Augusta, Me., James Fairman, seaman, of Ohio; Henry Thompson, seaman, of Philadelphia, Pa.; E. Henry Charlez, place of residence unknown.

Capt. Hosmer arrived at Payta, August 21st, 1849.

James A. Crowell, late first mate of the Janet, wrote to Henry Wilcox, owners' agent, in Westport, dated at Payta, Aug. 1st. After mentioning the fact of the three boats putting off for whales, as above stated, he adds, "At 3 P. M., I had my whale alongside, and soon the ship came to me, and when I got on board there was but one boat in sight, and that was five miles to the leeward of the ship. I went down to it with the ship, and found that it was the second mate's boat. He had seen Captain H. two hours previously fast to a whale, and went to the leeward of him when last seen from his boat. We proceeded in the direction in which the captain's boat had been seen, and lay to all night with all sails set and with all our lights fixed. In the morning saw nothing of the boat. We cruised three days, but unfortunately without meeting any trace of her. In the meantime four of our hands were sick from fatigue, and we were under the necessity of making the best of our way to this port (Payta).

We had taken one hundred barrels of oil for the last ten days previously, and lost two hundred barrels during the same time by losing lines. I expect the captain's boat was taken down by a foul line, as he had a new line in his boat coiled two days previous to the accident. We saved one whale the day the accident happened, and lost another that night."

[For the Transcript.]

Notes on Whales and Whaling. XXIV.

Whale boats are necessarily the lightest of fabrics, there not being a board in one from keel to gunwale that measures half an inch in thickness, and this of the lightest material. They are also lapstreaked, or "clinker" built, as it is called. The keel and stem and stern are set up, and the boards or planking sprung into their places, and the timbers fitted to the outside, instead of the planking to the timbers, as in all other boats and vessels. They ride buoyantly on the water, are considered the best sea boats in the world, and are lowered in seas and weather where no other boats could live.

POISON FOR WHALES.

The following method of catching whales by poison was published in Galignani's Messenger some few years since: Our readers are well aware of the deadly effects of the Indian poison called curare, or woorali, concerning which we have often had occasion to record the most interesting experiments, especially in mentioning the attempts made to use it as a specific for lockjaw, its peculiar action consisting in relaxing the muscular system. Strychnine is a poison producing the contrary effect, the excessive contraction of that system, or, in other words, tetanus or lockjaw. It is a curious fact that by the conjunction of these two agents, so diametrically opposed in their effects, a poison is obtained that will kill almost instantly, if only administered in the dose of half a milligramme per kilogramme of the animal to be subjected to its action, provided its weight do not exceed ten kilogrammes. If larger the dose must be proportionally increased. M. Thiercelin, the inventor of this poison, composes it by mixing a salt of strychnine with one-twentieth of woorali. To apply it to the whale fishing, he makes the compound up into cartridges of thirty grammes (an ounce) each, which is enough to kill an animal of 60,000 kilogrammes weight. Each cartridge is imbedded in the gunpowder contained in an explosive shell, which is fired off on the whale. In the late whaling voyage ten whales received such missiles, and all died within from four to eighteen minutes after the infliction of the wound. Out of these ten whales six were cut up for their blubber and whalebone. Their remains were handled by careless men, who frequently had scratches and sores on their skin, and yet not one of them suffered the slightest injury—a circumstance which shows that the poison cannot be transmitted from the fish to the men. Its poisonous action on the whale is, however, so great that practically the dose will have to be diminished, so that the death of the creature may not be so sudden. We should not forget to state that two out of the ten whales above mentioned were lost by one of the many accidents incident to whaling, and that two others were of a kind that is not worth fishing for.

THE CALIFORNIA GRAYBACK WHALE.

A writer in the Overland Monthly, published in San Francisco, furnishes the following graphic description of the pursuit of the Grayback whale on the coast of Lower California:

Margarita Bay, about two hundred miles north of Cape St. Lucas, consists of a series of narrow lagoons opening by narrow passages into each other, running parallel with the coast for many miles. At intervals openings appear in the beach, connecting them with the ocean. Through these, during the winter, come the cow whales of that species known to whalers as "Californy Gray," "Graybacks," or "Muscle Diggers," to avail themselves of the warm, quiet lagoon waters for breeding purposes.

Our mission was to kill and boil the skins of the great mothers for oil. After three weeks of towing and kedging we anchored in a small round lagoon, bordered on all sides by thickets of low, dense, green bushes, limbless to their trunks, and umbrella-shaped tops, birds among them singing and flitting about, while at intervals of a few minutes the round, smooth, glossy back of a Californy Gray would emerge from the surface, with an attendant puff of spray, and a blow, sounding like the rush of steam through the escape pipes of a high pressure engine; or, suddenly, a cable's length off, the immense black bulk would shoot half its length out of the water and half back with a tremendous splash.

Here we set to work immediately. The crew tumbled into the boats, and were soon in chase. Near as the Graybacks came to the schooner, they were shy of the boats. They had been chased before, and knew something of our deadly intentions. Two hours elapsed before we managed to creep up near one of the great fish. The oars were handled without noise; the men spoke not a word; they came within a few yards of the black mass; the suspense and half dread was akin to that experienced by the soldier in the hush before the battle. That immense creature whose ribs rivalled in size and strength the timbers in our vessel, whose vertebra was a linked series of blocks of bone, through whose arteries at each beat of the giant heart pulsated great jets of blood, had but to turn lazily round to move their flukes, as you would crook your little finger, and our boat would be a crushed mass of wood, as when, with your spoon, you playfully tap an empty egg shell. There is an upright figure in the bow, braced firmly back, poising above his head with both arms a heavy harpoon. The iron shaft is set in a heavy oaken pole, and the inexperienced arm cannot throw it as many feet as "Jake," our black boat steerer, can send it yards. On his great bared black arms the muscles stood out under the skin like ropes of twisted wire. Suddenly it shot in a curved line from his grasp; point downward it buried itself to the wood, impelled by its own weight through the coating of blubber, deep in flesh, muscle and cartilage. The rowers, their oars braced for the critical moment, sent the boat backward; for a moment the water foamed with the thrashing flukes and fins, the whale blindly and madly struck out in every direction, to crush the creature which had stung her. Then, she suddenly disappeared under water, with a final angry flirt of the flukes. Coil and coil of neatly-laid line sprnng from the tub in the boat's bottom; it ran smoking about an upright round block in the bow; the boat, buried to the gunwales, flew through the water, the long oars were high in the air apeak, and the men sat idle in their seats.

All action was now confined to the two upright figures at the bow and stern. The whale being "fast" they changed places; black Jake stepped aft and handled the long steering oar, the other came forward and made ready the keen, round-edged lance. The whale commenced gradually to slacken her speed; the boys slowly hauled in the line and coiled it away. Soon just ahead the smooth waters were seen simmering and full of little whirlpools; it was the commotion caused by the passage of the mighty mass underneath. There! the great head burst through the surface—there came a snort, a jet of water and foam from her "blowholes," a great gulph of air for the laboring lungs; the light lance darted from the boat header's hands. It pierced her side, but she was down again in an instant. There was a tinge of blood passing by the flying boat; the lance was pulled back by the attached light hempen line; the boat header, his eye on the boiling surface, signalled to the steersman, by a wave of either arm, the proper direction. The light craft obeyed the slightest motion of the long steering oar. Again she came up for a breath; again the lance was buried in her side, and the jet from her blow holes was reddened with blood—a sign of victory to us, of death to her. The iron had entered her lungs.

There was another party concerned in this murder. Alongside of the whale swam another fish of similar proportions, ten or twelve feet in length. It was the calf. For it the mother was sacrificing herself. The young one was weak. She retarded her speed that it might keep up with her. And this gave us double the number of chances for sending the lance to her vitals. There was then a slackening of speed; the men looked anxiously around. These graybacks have, at times, gleams of sense and cunning; sometimes they cease at once their flight and grope about beneath the surface. Suddenly under the water there is felt a rub and up come the submerged tons of flesh, bone, blubber and wrath, and up from the black back flies boat, men, tubs, lines, lances, harpoons, and scattered amid the floating ruins are seen heads and hands clinging to oars, paddling feebly from the enraged thrashing monster, and waving their caps for assistance.

But our first whale was taken without such disaster. The jets grew redder and redder; we hauled off at a respectful distance, warned by the signs indicating the coming of the "flurry," her death throes. There is something awful in the giving up of life by these great animals. They rush about in great circles, and tear through the water like a swiftly speeding steamer. They cease suddenly and belabor the waves; then the blind rush again commences; there are death shudderings and tremblings sensible even to those watching from the boats. Life leaves the great animal with a harder struggle than when the beetle dies.

We towed the upturned carcass to our vessel. But the poor calf still followed the dead mother. It was playing about in the morning, and as like a huge bladder it swelled, rising buoyantly foot after foot out of the water, quite to the bulwarks, and after we had stripped from the carcass the blubber and turned it adrift to float up and down the lagoon, a *festering* mountain of rottenness, its back crowded with the gorged gulls and cormorants, the poor, helpless, starving creature still swam by its dead mother's side. It was foul murder. The whale has all the instincts and affections of a mammal. It deposits no spawn and then swims heartlessly away. We would often from our decks watch these same graybacks give suck to their young, and in unwieldly sport roll over and over with them in these warm and sheltered lagoon nurseries.

The carcass alongside, a great iron hook was fastened to that part nearest the head; the strongest "tackle and falls" we had on board clapped on the old-fashioned windlass; and amid its clink clank and a rough sea chorus from the dingy-looking sailors, great strips of blubber were hoisted on board; the whale rolled slowly over and over, and his oily wealth was taken from him, something as one rolls the ribbon from the block. The try-work fires were kindled, at first with wood, afterwards with the "scraps" bailed with great cullenders from the seething cauldrons. Black smoke enveloped the vessel by day; greasy flakes of soot covered the men, rigging and sails, and penetrated the hold, cabin and forecastle. The uncomfortable cook murmured as he broke his newly baked loaves and found them tinged with the sooty shower. The steward vainly endeavored to hide his towels, so that they might not on his plates leave more blackness than they wiped off. By night, the masts and cordage stood out in a glare of light. And in this the gang moved about like maritime witches—some feeding the fierce flame, some stirring up the seething oil, bailing it out into the "coppers," ladling in fresh blubber and ladling out the dripping scraps; some chopped the long strips of blubber into oblong blocks called 'horse pieces,' then minced them fine with long sharp knives. Slender tree trunks covered with small oysters were held in the blaze until the shellfish gaped open, and were eaten with great relish. The tree of umbrella-shaped foliage bears oysters. The tide covers the limbless trunk at high water. Those who have seen mussels growing in a similar manner will not think the story surprising. We cut them down by day and roasted them by night.

So, also, doughnuts were fried in the "coppers" filled with hot oil to cool. They were not flavored with lamp oil. Whale oil newly tried out is quite as tasteless and limpid as water.

[For the Transcript.]

Notes on Whales and Whaling. XXVII.

THE NARWHAL.

The narwhal (*monodon monoceros*) is one of the most valuable of the cetaceans to the Greenlanders of the Northern Inspectorate. The seas about Nova Zembla, Spitzbergen and Greenland are the domain of this "sea unicorn," a cetacean quite as strange but not so fabulous as the terrestrial animal which figures as one of the supporters of the arms of Great Britain. The use of the enormous spirally wound tusks projecting from the upper jaw, and from which it derives its popular name, has not yet been clearly ascertained, some holding it to be an instrument of defence, while others suppose it is only an ornament or mark of the superior dignity of the sex to which it is awarded. The narwhal is caught on the coast of Greenland only in the Omenak Fjord, which it visits regularly in November. As its chase is both difficult and dangerous, the Greenlanders generally hunt in company, so that after a narwhal has been struck with the first harpoon or lance, others are ready to follow up the advantage. Sometimes masses of oil, evidently proceeding from dead whales, are found floating in the fjords about Greenland. In 1854 ninety-five tons of this matter were collected near Holsteinburg. [For other notices of the narwhal see No. XI. of these notes].

HOW THE ALEUTS USED TO CATCH THE WHALE.

Armed with a short spear, a single Aleut does not hesitate to attack this colossal animal. Approaching cautiously from behind in his "baidar" until he reaches the head, he plunges his weapon into the animal's flank, under the fore fin, and then retreats as fast as his oar can carry him. If the spear has penetrated into the flesh, the whale is doomed; it dies within the next two or three days, and the currents and the waves drift the carcass to the next shore. Each spear has its peculiar mark by which the owner is recognized. Sometimes the baidar does not escape in time, and the whale, maddened by pain, furiously lashes the water with his tail, and throws the baidar high up in the air and sinks it deep into the sea. The whale fishers are highly esteemed among the Aleuts, and their intrepidity and skill well deserve the general admiration. Of course many of the whales are lost. In the summer of 1831, one hundred and eighteen whales were wounded near Kadjack, of which only forty-three were found. The others may have been wafted far out to sea to regale the sharks and sea birds, or driven to more distant shores, whose inhabitants no doubt gladly welcomed their landings. Wrangel informs us that since 1833 the Russians have introduced the use of the harpoon and engaged experienced harpooners to teach the Aleuts a more profitable method of whale catching, but we are not told how the experiment has succeeded.

HOW THE ESQUIMAUX CATCH WHALES.

On the coasts frequented by whalers the Esquimaux devote the month of August to the pursuits of these animals; a successful chase insuring a comfortable winter to a whole community. Their capture requires an assoc[illegible] of labor; hence along the Polar Sea the Esq[illegible]maux unite their huts into villages, for whose site a bold point of coast is generally chosen, where the water is deep enough to float a whale. When one of these huge creatures is seen lying on the water a dozen kayaks or more cautiously paddle up astern of him, till a single canoe preceding the rest, comes close to him on one quarter, so as to enable the men to drive the spear into the animal with all the force of both arms. This spear has a long line of thong and an inflated sealskin attached to it. The stricken whale immediately dives, but when he reappears after some time, all the canoes again paddle towards him, some warning being given by the sealskin buoy floating on the surface. Each man being furnished like the first, they repeat the blow as often as they find an opportunity, till perhaps every line has been thus employed. After chasing him in this manner sometimes for half a day, he is at length so wearied by the resistance of the buoy and exhausted by loss of blood as to be obliged to rise more and more often to the surface, and is finally killed and towed ashore.

[For the Transcript.]

Notes on Whales and Whaling. XXVI.

THE BLACK DOLPHIN OR CAING WHALE.

The black dolphin (*Globicephalus globiceps*,) is very common in the Arctic seas, both beyond Behring's Straits and between Greenland and Spitzbergen, whence it frequently makes excursions to the south. It grows to the length of twenty-four feet, and is about ten feet in circumference. The skin, like that of the dolphin tribe in general, is smooth, resembling oiled silk; the color is a bluish-black on the back and generally whitish on the belly; the blubber is three or four inches thick.

The full-grown have generally twenty-two or twenty-four teeth in each jaw, and when the mouth is shut, the teeth lock between one another, like the teeth of a trap. The dorsal fin is about fifteen inches high, and the tail five feet broad,—the pectoral fins are as many long and comparatively narrow; so that armed with such excellent paddles, the black dolphin is inferior to none of his relatives in swiftness. Of an eminently social disposition, these dolphins sometimes congregate in herds of many hundreds, under the guidance of several old experienced males, when the rest follow like a flock of sheep—a property from which the animal is called in Shetland the "caing whale." No cetacean strands more frequently than the black dolphin, and occasionally large herds have been driven on the shores of Iceland, Norway, and the Orkney, Shetland and Faroe Islands, where their capture is hailed as a godsend.

HOW THE FAROE WHALERS CATCH THE CAING WHALE.

The intelligence that a shoal of caing whales, or grinds, has been seen approaching the coast creates great excitement among the otherwise phlegmatic inhabitants of the Faroe Islands. The whole neighborhood, old and young, is instantly in motion, and soon numerous boats put off from shore to intercept the retreat of the dolphins. Slowly and steadily they are driven toward the coast; the phalanx of their enemies draws closer and closer together; terrified by stones and blows, they run ashore and lie gasping as the flood recedes. Then begins the work of death, amid the loud shouts of the executioners and the furious splashings of the victims. In this manner more than 800 grinds were massacred on August 16, 1776; and during the four summer months that Langbye sojourned on this island in 1817, 623 were driven on shore, and served to pay for one-half of the imported corn. But, on the other hand, years frequently pass without yielding one single black whale to the tender mercies of the islanders.

A SHOAL OF CAING WHALES STRANDED ON THE COAST OF CUMBERLAND.

A vast shoal of these whales was stranded in the Solway Firth a few years since, of which an account was given, with an illustration, in the London Illustrated News, No. 722, Jan. 6, 1855. Many a cottager along the coast had reason to be glad that they were stranded, as their lamps were provided with oil for many a winter in consequence. They were first seen by some fishermen in the Irish Sea December 16, 1854. On the following day they were brought up by the tide to the mouth of the Solway Firth. As far as the eye could reach these huge black creatures were to be seen rolling along in the sea and spouting out columns of water. The noise made by their blowing and lashing the water as they got into the shallows soon drew attention, and great numbers of fishermen and country people came to the shore hoping to take some of them.

A considerable number were slaughtered, but owing to there being a scarcity of horses to drag the carcases up the beach they were one by one floated off by the returning tide, and carried out to sea. On the following day, a number of horses having been brought to the shore, very many were secured. By Tuesday, the 19th of December, they had got still farther up the firth, and at Annan, Durnoch and other places nearly two hundred were killed, and oil to the value of £600 secured. It was estimated that there were several thousand of them in the school. Their dimensions varied from eighteen to thirty feet in length, and about twelve feet girth.

THE BELUGA, SOMETIMES CALLED THE WHITE WHALE.

Among the numerous dolphins which people the Arctic and Antarctic seas, the beluga, (*Delphinus leucas,*) improperly called "the white whale," is one of the most interesting. When young it has a brown color, which gradually changes into a perfect white. It attains a length of from ten to twenty feet, has no dorsal fin, a strong tail three feet broad, and a round head with a broad truncated snout. Beyond latitude fifty-six degrees it is frequently seen in large shoals, particularly near the estuaries of the large Siberian and North American rivers, which it often ascends to a considerable distance in the pursuit of salmon. A troop of belugas diving out of the dark waves of the Arctic sea is said to afford a magnificent spectacle. Their white color appears dazzling, from the contrast of the sombre background, as they dart about with arrowlike velocity. The Danish residents of Greenland, improving upon the old Esquimau methods of fishing or hunting, set nets for the white whale.

For other notice of the beluga see No. XI. of these notes.

Notes on Whales and Whaling. XXIX.

THE GRAMPUS (*Delphinus orca*).

We have briefly noticed the ferocious oro—said to be identical with what is known to seamen as the "killer"—the tiger of the Arctic and Antarctic seas, in No. XI. Black (or brown) above and white beneath, it is distinguished by its large dorsal fin, which curves backward toward the tail and rises to the height of two feet or more. Measuring no less than twenty-five feet in length and twelve or thirteen in girth, of a courage equal to its strength, and armed with formidable teeth, thirty in each jaw, it is the dread of the seals, which it overtakes in their rapid flight; and the whale himself would consider the grampus as his most formidable enemy, were it not for the persecutions of his human enemies. The grampus is frequently seen about the shores of Nova Zembla, and generally ploughs the seas in troops of four or five, following each other in close single file, alternately disappearing and rising, so as to resemble the undulating motions of one large serpentiform animal, which has no doubt given rise to stories of the great and still uncaught sea serpent. Perhaps the contest between a whale and a sea serpent, to which in 1818 Captain Shubael West and others made affidavit, was only a fight between a whale and one or more of these animals. Though acquainted or experienced in whaling, the captain may never have witnessed a family of these animals gambolling. When a grampus gets among a school of whales, he spreads great consternation, and the more timid but larger animals fly every way like startled deer.

Captain Charles Wilkes of the United States Exploring Expedition describes one of these encounters in Antartic waters, which was witnessed from on board the U. S. ship Peacock, January 20, 1840. The sea was quite smooth and offered the best possible view of the combat. First, at a distance from the ship, a whale was seen floundering in a most extraordinary manner, lashing the sea into foam and endeavoring apparently to extricate himself from some invisible enemy. As he approached the ship, the struggling continuing and becoming more violent, it was perceived that a grampus about twenty feet long held him by the jaws. His spoutings, contortions and throes all betokened the agony of the whale. The whale now threw himself at full length upon the water with open mouth, his enemy still hanging to his under jaw, the blood which issued from the wound dyeing the sea for a long distance around. All the flounderings of the whale were of no avail, the "bulldog of the sea" maintained his hold and was evidently getting the advantage, while the other whales, of which there were several about, seemed greatly alarmed. The grampus attacks the whale just as a dog baits the bull, and worry's him to death. Endowed with immense strength and armed with strong sharp teeth, the grampus generally if not always seizes the whale by the jaw. It is said the object of their attack is the whale's tongue, upon which they feed, and which is to them an epicurean delicacy—as that organ in a right whale sometimes contains as much as five barrels of oil. It is certainly quite a mouthful for the grampus.

THE SWORDFISH AND THRESHER,

which is a species of shark, in their attacks upon the whale are said to act in concert. The swordfish thrusting his tremendous weapon into the belly of the whale from beneath upward, and the thresher fastening to his back, and giving the whale tremendous blows with his flail. This war alliance between these two enemies of the whale is certainly a wonderful concert of instinct. The thresher has no power to strike through the water, or a power greatly weakened. The underneath attack of the swordfish forces the whale to rise above the surface when the thresher, holding on like a leech, can deal his blows with best effect.

Captain Crow relates a contest he witnessed between several threshers and swordfish on the one side and a whale on the other. This novel marine battle was fought one calm morning near the Hebrides. It was the middle of summer, and the weather being clear, and the fish close to the vessel, Captain Crow and his crew had a fine opportunity of viewing the combat.

As soon as the whale's back appeared above water the threshers sprang several yards into the air, and descended with great violence upon the object of their rancor and inflicted upon him the most severe slaps with their tails, the sound of which resembled the reports of a musket fired at a distance. The swordfish in its turn attacked the distressed whale, stabbing him from below, and thus beset on all sides and wounded, when the poor creature appeared the water around him was dyed with blood. In this manner these enemies continued tormenting and wounding the poor whale for many hours, until lost sight of by Captain Crow, and they undoubtedly accomplished the whale's death.

THE SEA SERPENT.

The whale has, according to some, another enemy, which may create a smile among doubters of the animal's existence, though the facts are substantiated by affidavits. I allude to the great sea serpent which has from time to time shown itself upon the coast of the United States and the coast of Norway, if the eyesight of thousands of credible and intelligent witnesses attested to with the greatest formality, may be believed. The year 1818 is celebrated in the annals of the sea serpent, scarcely a vessel cruising along the coast of New England during the summer and autumn months but reported having seen that still mysterious and elusive animal. Accordingly we have in that year two accounts of the encounter of a whale and the sea serpent. The first is in the form of an affidavit from a Captain West of Hallowell, whom the editor of the Boston Advertiser, in which it was published, says was well known to him, and that the correctness and veracity of his statement is not to be doubted. This affidavit referred to is as follows:

I, SHUBAEL WEST, OF HALLOWELL,

in the County of Kennebec, master of the packet Delia, plying between Kennebec River and Boston, testify and say, that I left Boston on the morning of Sunday the 21st instant, and, at about six o'clock in the afternoon, Cape Ann bearing W. S. W. about two leagues, steering a course N. N. E., saw directly ahead, distant three-fifths of a mile, an object which I have no doubt was the

SEA SERPENT,

so often mentioned by others, engaged with a whale that was endeavoring to elude the attack. The serpent threw up his tail from twenty-five to thirty feet in a perpendicular direction, striking the whale with tremendous blows rapidly repeated, which were distinctly heard and very loud, for two or three minutes. They then both disappeared for several minutes, moving in a W. S. W. direction, when they reappeared inshore of us, and about under the sun, the reflection of which was so strong as to prevent our seeing so distinctly as before—when the tremendous blows were repeated, and as clearly heard as before. They then went down again for a short time, and again came up to the surface under our larboard quarter, the whale appearing first and the serpent in pursuit. Here our view was very fair. The serpent shot up his tail through the water to the height before mentioned, which he held out of water some time waving it in the air, and at the same time, while his tail remained in this position, raised his head rather leisurely fifteen or twenty feet, as if taking a view of the surface of the sea. After remaining in this situation a short time, he again sunk into the water, disappeared, and was not afterwards seen by any on board. The serpent's body was larger, in my opinion, than the mast of any ship I ever saw; his tail appeared very ragged and rough, and was shaped something like an eel's, and his head like that of a land serpent. Being *well acquainted with whaling*, I think the whale was endeavoring to escape, as he spouted but once at a time on coming to the surface. The whale's back was distinctly seen, as well as his spouting, and the last time he appeared he went down before the serpent came up. The above was seen by all on board, amounting to fifteen or eighteen persons, as well as myself, with the exception of one woman. During our view the combatants had passed a mile or more. The whale was a humpback and a pretty large one.

SHUBAEL WEST.

—

HALLOWELL, June 27, 1818.

KENNEBEC, ss.

Then the above-named Shubael West personally appeared before me, the subscriber, one of the justices of the peace within and for the county of Kennebec, and made solemn oath that the above statement of facts by him subscribed is just and true.

A. MANN.

ANOTHER ACCOUNT.

This affiidavit is confirmed by a very long and minute affidavit of Mr. Samuel Schmid of Philadelphia, a passenger on board Captain West's packet, whose character is thus vouched for by Professor Cooper of the University of Pennsylvania: "I have known and highly respected Mr. Schmid for many years, and I consider his character for probity and veracity as unimpeachable. Nor is it easy to find a man of more attentive and accurate observation,"etc. An account of a scene of which he was an eyewitness seemed to me entitled to more than the usual credit given to strange occurrences related by persons whose characters are little known. Mr. Schmid states in substance in relation to this strange scene, that between the hours of 6 and 8 P. M., Sunday, June 21, he saw ahead of the vessel a tall, white object, standing upright out of the water, which he thought might be a pillar set up for some particular purpose. He viewed it alone for seven or eight minutes, until he saw its upper end waving about for a short time, when, after giving a hard stroke to the water, it disappeared. In about three minutes the object rose again, when he called up various persons from below to view it. At this time a whale appeared, spouting near it, and the object which stood up was recognized as the tail of some animal, and concluded to be that of the sea serpent. This tail was seen to strike the water again several times, and both animals descended below the surface, but showed themselves again in a few minutes abreast, but the sun lying behind them, and no glass at hand, the view was imperfect.

Soon afterwards a form like that of a head rose up, seemingly connected with the tail originally seen, though the intermediate body was to him invisible. The neck was curved below the head; the head was at first held horizontally, but afterwards assumed an oblique position, as if looking down into the water below. Some additional strokes were now made with the tail, and both whale and serpent dived again. Some considerable time afterwards both animals reappeared, but at too great a distance to afford a perfect view; but the serpent made several fresh strokes. The motions of both animals were rapid, and those of the serpent vigorous, and the noise and agitation of the water from his strokes great. His tail seemed white, and apppeared to be flattened crosswise; its edges also had an indented appearance, while its end was blunt. The head and neck appeared of a dark color, and the body below the neck seemed rapidly to enlarge. Mr. Schmid soon after observed the mast of a vessel, which appeared abundantly smaller. He thought the length of the tail exhibited about twenty-five or thirty feet, and the head stood about half that length above water. The separation between the two seemed so considerable that it was thought the vessel might have sailed between them across the body—the total length of which he estimated at one hundred feet.

Mr. Semid, who swore to his statement before John Merrick, justice of peace at Hallowell, Me., says he states mere facts, that those who knew him might be assured of them, and also that naturalists might, from his statement, begin to have some notion of the habits of the sea serpent. Two sea captains, beside Captain West, with the crew and passengers, were companions with him in this strange and curious sight.

STILL ANOTHER ACCOUNT.

I have another account of a similar contest in another locality, about the same time. It was published in a Boston paper a week or two later, which stated that Captain Freeman Smith of the schooner Maximilla, from Lubec, with forty-four Irish passengers for New York, when about forty miles southeast of Monhegin, the weather being moderate, discovered about two miles ahead what he at first took to be a small boat, which soon disappeared, and in a few minutes was discovered about a quarter of a mile to leeward, to be the sea serpent—his head about fifteen feet out of water and his tail at the same time about ten feet out; his breast or body near the water was encircled with a clear white stripe—the diameter, to appearance, about six feet. In this position the monster remained about two minutes as if attentively viewing the vessel, and then began threshing the water, with his head alternately on either side, with the utmost fury. Upon this a whale was discovered near him who spouted twice and they both disappeared. The whale was soon after seen to rise and spout once, which closed the scene. The editor adds, "As Captain Smith has been on whaling voyages, and had frequent views of the attacks of the thresher upon the whale, we place the fullest confidence in his statement."

THE WITNESSES.

With such reliable witnesses, who testify on the solemnity of an oath circumstantially to these singular contests, it is impossible not to give some credence to the statement. The fact that among the observers were some who had been a whaling and witnessed the attack of the thresher upon the whale, and who assert positively that these were not fights of that kind, would seem to prove almost that these contests of the whale were with some unknown monster, resembling what has been often seen, and is generally known as the "great sea serpent."

Notes on Whales and Whaling. XXX.

Sperm whales fight together, by rushing head first at one another, with their mouths wide open, their object seeming to be to seize their opponent by the lower jaw; with this intent they turn themselves on their sides, and become, as it were, locked together, their jaws crossing, and so strive for the mastery. Goldsmith is certainly mistaken in saying "the whale leads an inoffensive life, pursues no other animal, and is harmless in proportion to his strength." In their encounters with each other they frequently have their jaws broken, and bull whales are often known to defend themselves by chawing up and destroying all the boats of a ship, and even attacking the ship itself.

DISABLED WHALES.

Captain John Pease, an old and observant whale fisher, says the conflicts between the males of sperm whales cause great damage to the lower jaw; the evidence shows that at least two per cent. are crooked more or less, and one in several hundred very badly bent by these struggles. There are two specimens in the small museum at Nantucket which are singularly contorted; one of them is bent laterally into one turn of a spiral. Captain Pease found one that was bent sideways at right angles to the proper position, and firmly fixed there, seeming to be permanently fastened in this singular position. The great speed and power of these massive creatures must lead to the most serious results from such collisions. Captain Pease once found a sperm whale nearly dead on the water, with lower jaw hanging by a single band of ligament a few inches through. Sharks and crustaceans were devouring the creature, but the wrench which had crippled him must have come from one of his own kind.

WHALES ATTACKING SHIPS.

Marco Paulo, the Venetian traveller of the thirteenth century, A. D. 1298, in speaking of the water-tight compartments of the Chinese junks, notices the whale's disposition to attack ships. "Many of these ships," he says, "have as many as thirteen divisions in the hold, formed of thick planks mortised into each other—the object being to guard against accidents which may cause the vessel to leak, such as striking a rock or being attacked by a whale. *This last circumstance is not unusual;* for during the night the motion of the ship through the waves raises a foam that invites the hungry animal, which, hoping to find food, rushes violently against the hull, and often forces out a part of the bottom. The water entering runs up to the well, which is always kept clear, and the crew remove the goods from the inundated division, the boards of which are so tight that the water cannot pass to any other."

OF THEIR DESTRUCTION OF SHIPS

there are several instances on record. Of these one of the most celebrated is the destruction of the American ship Essex, Captain George Pollard, by a sperm whale, in 1820. The Essex sailed from Nantucket, Mass., August 12, 1819, on a whaling voyage to the Pacific Ocean. The crew consisted of twenty-one men, most of whom belonged to Nantucket. On the 19th November, 1820, in latitude 40 degrees S., longitude 119 degrees W., a school of whales was discovered, and in pursuing them the mate's boat was stove, which obliged him to return to the ship, when the crew commenced repairing the damage. The captain and second mate were left with their boats pursuing the whales. During this interval the mate discovered a large sperm whale near the ship, but, not suspecting the approach of any danger, it gave them no alarm until they saw the whale coming with full speed toward them. In a moment they were astonished by a tremendous crash. The whale had struck the ship a little forward of the fore chains with such force that the keel of the vessel was partly laid bare. It was some minutes before the crew could recover from their astonishment, so far as to examine whether any damage had been sustained. They then tried the pumps, and found that the ship was sinking. The boats were recalled, but before they arrived the whale, which had first gone ahead of the vessel a third of a mile, swam back and came against the vessel again with great velocity, nearly staving a hole in her bows, and notwithstanding the rapidity of her course, under full sail, she reeled and receded under the shock, until her retrograde motion was almost as rapid as her advance forward. The damage occasioned by the gigantic shock is not to be described. The waves broke into the ship through the cabin windows. All the persons who happened to be on deck were thrown down; the vessel filled with water, and was laid on her side, and did not right until the masts were cut away. It was immediately evident that there could be no hope of saving her, and the only course to be pursued was to leave with all possible haste. The ship soon sank to the water's edge, and after collecting 600 pounds of bread and such other articles likely to be of use to them, the boats started away, with as gloomy a prospect as can well be imagined.

ONE THOUSAND MILES FROM LAND IN OPEN BOATS—ADVENTURES.

The nearest land was about 1000 miles to the windward of them; they were in open boats, weak and leaky, with a very small pittance of bread and water for the support of so many men during the time they must necessarily be at sea. After being in their boats twenty-eight days, experiencing many sufferings by gales of wind, want of water and scanty provisions, they arrived at Ducies' Island, in latitude 24° 40′ south, longitude 124° 40′ west, where they failed to find any food for a large company to subsist on. After securing a fresh supply of water, the boats left, December 22, three of the men remaining behind, preferring to run the risk of some vessel stopping at the island and taking them off. They steered for Easter Island, but passed it far to the leeward, and then shaped their course for Juan Fernandez, about 2500 miles east-southeast from them. On the 10th of January, 1821, Matthew P. Joy, second mate, died, and his body was launched into the deep. On the 12th the mate's boat separated from the other two, and did not fall in with them afterwards. The situation of the mate and his crew became daily more and more distressing—the weather was calm, the sun hot and scorching, and they were growing weaker by want of food, and yet, such was their distance from land that they were obliged to lessen their allowance nearly one-half. On 20th a colored man died, and on the 8th of February another of the crew passed away. From then until the 17th their sufferings were terrible, but at 10 o'clock A. M. of that day they were descried by the brig Indian, Captain Grozier of London, which shortened sail and took them on board, lat. 33° 45′ S., long. 81° 03′ W. The poor fellows were treated with the care and tenderness which their weak condition required, and on the 25th of the month they were landed at Valparaiso.

Captain Pollard and Charles Ramsdell, the only survivors in the captain's boat, were taken up on the 23d of February, 1821, ninety-six days after the shipwreck, by the ship Dauphin of Nantucket, Captain Zimri Coffin, in lat. 27° S., off St. Mary's. Famine had reduced them to the horrid necessity of eating each other. Eight times they drew lots, and eight victims were sacrificed to the hunger of their surviving companions. The lot had already been drawn which condemned the boy to the same fate, when he and the captain discovered the vessel which saved them. The captain stated that after the mate's boat was separated from the others they made slow progress towards the island of Juan Fernandez, and on the 29th of January the second mate's boat separated from the captain's, in the night, at which time their provisions were wholly exhausted, and after the separation they were never heard from.

It would be useless to attempt a sketch of the sufferings of the crews of these boats. Imagination may picture the horror of their situation, and the extremes to which they were driven to sustain life, but no power of fancy can heighten the dreadful reality. The few survivors, who were compelled to draw lots to see who should be shot, and to subsist upon the wasted forms of their dead companions, could not speak of the subject years afterwards without turning pale and showing the greatest emotion.

SUMMARY.

Of the whole crew in the captain's boat two survived, viz., Captain Pollard and Charles Ramsdell; in the mate's boat three survived—Owen Chase (the mate), Benjamin Lawrence and Thomas Nickerson; left on Ducies' Island, and afterwards taken off, Seth Weeks, William Wright and Thomas Chappell; one left the ship before the accident; in the second mate's boat, when separated from the captain's, three; dead, nine; which, added to the missing second mate's crew, make total deaths twelve.

The captain of the Essex, George Pollard, subsequently made another voyage whaling, as master of the ship Two Brothers, again having the misfortune to lose his vessel and narrowly escape death. After the loss of the Two Brothers he retired from the sea and engaged in business at Nantucket. In 1869 he celebrated the fiftieth anniversary of his wedding, and at the advanced age of eighty-five years, blessed with excellent health and a sound mind, he was a watchman in the town of Nantucket.

Owen Chase, mate of the ship, followed the sea for a number of years after the disaster, and died recently.

Benjamin Lawrence continued in the whaling business until it declined, and in 1869, at about seventy-five years of age, was living in Nantucket, surrounded by a large circle of relatives and friends.

Thomas Nickerson is dead, we believe, and of the remaining survivors, Weeks, Wright and Chappell, nothing can be ascertained.

In San Francisco, at the old adobe building adjoining the Mission Church, two large whale-bones, each about fifteen feet in length, form an arch over the doorway of the saloon. Near them is a canvas sign, having the inscription, "Jaw bones of the whale which sunk the ship Essex in the Pacific Ocean." But an old whaler who has examined them, says those bones were never the jaw bones of a sperm whale, and are probably a couple of ribs from a California gray whale.

[For the Transcript.]

Notes on Whales and Whaling. XXXI.

The Union of Nantucket, Captain Gardner, was lost by a similar concussion in 1807. On the 24th of April, 1815, the brig Philip, from Charleston, S. C., bound for Bordeaux, were struck by a whale. Her stem and cutwater was laid athwartship to the starboard from the scarf of the stem by the shock. The water soon rose above the cabin floor, and the crew were taken from the wreck the next day, saving only four bales of cotton. A merchant brig plying between Panama and one of the ports of western Mexico has lately met with a similar disaster.

In August, 1850, the whaling ship Ann Alexander, Captain John S. Deblois, was sunk almost instantly by an enraged sperm whale. A graphic account of her loss was published in the Panama Herald, from which I condense the following:

AN ENRAGED WHALE.

On the 20th of August, 1850, the Ann Alexander reached the "off-shore ground," in latitude 5° 50′ south, longitude 102° west. About nine o'clock A. M. whales were discovered, and about noon they succeeded in making fast to one. The whale was harpooned by the larboard boat commanded by the mate. After running some time the whale turned upon the boat, and rushing at it with tremendous force, lifted its enormous jaws, actually took the boat in, and crushed it into fragments as small as a common sized chair. Captain Deblois, in the starboard boat, immediately hastened to the scene of disaster, and against all expectation, rescued the whole crew of the other boat, nine in number. How they escaped from the jaws of the monster is a mystery known only to "Him who holds the waves in the hollow of his hand." There were now eighteen men in the starboard boat. The frightful disaster had been witnessed from the ship, then about six miles distant, and the waist boat sent to their relief. On the arrival of the waist boat the crews were divided, and another attack upon the same whale resolved on. Accordingly they separated, and proceeded at some distance from each other, as is usual on such occasions, after the whale. In a short time they came up to him, and prepared to give him battle. The waist boat, commaded by the first mate, was in advance. As soon as the whale perceived the demonstrations being made upon him, he turned his course suddenly, and making a dash at this boat, seized it with his wide-spread jaws, and crushed it into atoms, allowing the men hardly time to escape his vengeance by throwing themselves into the ocean.

MARVELLOUS ESCAPE.

Captain Deblois, again seeing the perilous condition of his men, at the risk of meeting the same fate, hastened with his boat to their rescue, and in a short time succeeded in saving them all from a death, little less horrible than that from which they had twice so miraculously escaped. He then ordered the boat to put for the ship as speedily as possible, when it was discovered that the whale was making for them, with his jaws widely extended. Escape from death seemed totally out of the question. They were six or seven miles from the ship, no aid even there to afford them relief, and the whale, maddened by the wounds of the harpoon and lances, and seemingly gloating with the prospect of speedy revenge, within a few cables' length. Fortunately the monster came up and passed them at a short distance. The boat then made her way to the ship, and they all got on board in safety.

After reaching the ship a boat was sent for the oars of the demolished boats; and it was determined to pursue the whale with the ship. On the return of the boat with the oars, sail was made, and the ship proceeded after the whale and overtook him, when a lance was thrown into his head. The ship passed by him, and immediatly after they discovered the whale was making for the ship. As he came up near her, they hauled on the wind and allowed him to pass her. After he had fairly passed, they kept off to overtake and attack him again. When the ship was within fifty rods of him, they discovered that the whale had settled down deep below the surface of the water, and, as it was near sundown, they concluded to give up the pursuit.

A SHIP STRUCK BY A WHALE AND SUNK.

Captain Deblois was at this time standing on the knight-heads, on the larboard bow, with "craft" in hand ready to strike the monster a deadly blow should he appear, the ship moving about five knots, when he discovered the whale rushing towards her at the rate of fifteen knots. In an instant the monster struck the ship with tremendous violence, shaking her from stem to stern. She quivered as if she had struck upon a rock. Captain Deblois immediately descended into the forecastle, and there to his horror discovered that the monster had struck the ship about two feet from her keel, abreast the foremast, knocking a great hole entirely through her bottom, through which the water roared and rushed impetuously! Springing to the deck, he ordered the mate to cut away the anchors, and get the cables overboard to keep the ship from sinking, as she had a large quantity of pig iron on board. The mate succeeded in clearing one anchor and chain; the other was fastened around the foremast. The ship was then sinking rapidly, but the captain succeeded in procuring his chronometer, sextant and chart, though there was three feet of water in the cabin. The boats were cleared away, and such water and provisions as was practicable was got into them, as the ship was heeling over. The captain returned to the cabin, but the water was rushing in so rapidly he could procure nothing. He then ordered all hands into the boats, and was the last to leave the ship, which he did by throwing himself into the sea and swimming to the nearest boat, when the ship was on her beam ends and her topgallant yards under water. They then pushed off some distance from the ship, expecting her to sink. Upon an examination of the stores they had saved, they were found to consist of only twelve quarts of water and not a mouthful of provisions of any kind. The boats contained eleven men each; they were leaky, and night coming on, they were obliged to bail them all night to keep them from sinking.

Next day at daylight they returned to the ship, and the captain — no one else daring to venture—went on board to cut away the masts, it being feared that the moment they were cut away the ship would go down. With a single hatchet the captain cut away the masts, when the ship righted. The boats then came up, and the men, with the sole aid of spades, cut away the chain cable from around the foremast, which got the ship nearly upon her keel.

HEROIC ACTION.

The men then tied ropes round their bodies, got into the sea, and cut holes through the decks to get out provisions, but procured nothing but five gallons of vinegar and twenty pounds of bread. The ship threatened to sink, and they deemed it imprudent to remain by any longer, so they set sail on their boats and left her; knowing that unless a kind Providence should direct them to fall in with some ship, they must all die of starvation and thirst, or that to sustain life they would be obliged to eat each other's bodies as soon as life had departed!

Their only hope was to reach a rainy latitude, that from the rains that might fall they could sustain life. With this hope they steered northerly and on the 22d of August to their indescribable joy, they discovered a ship in the distance. They made signal to her, the signal was soon answered, and in a short time they were on the deck of the ship Nantucket of Nantucket, Captain Gibbs, who clothed and fed them, and extended to them in every way, the greatest possible hospitality. The next day Captain Gibbs went to the still floating wreck of the Alexander to try to procure something from her, but as the sea was rough and the attempt dangerous, he abandoned the project.

THE WHALE CAUGHT.

The Honolulu Friend of May 6, 1854, stated that about five months subsequent to the catastrophe the same whale was taken by the Rebecca Sims of New Bedford. Two harpoons were discovered in him marked "Ann Alexander." The whale's head was found seriously injured, and contained pieces of the ship's timbers. He had lost his wildness and ferocity, being very much diseased; but upon being taken yielded seventy or eighty barrels of oil.

Doubtless many instances of

THE DESTRUCTION OF SHIPS BY WHALES

have occurred where none have lived to tell the tale, and that many a good ship put down as "missing," or as having "foundered at sea and never heard from," may have met her fate in this manner. A blow that would beat in the stout oaken ribs of a ship would hardly give a bull whale the headache.

CRUSHING BOATS.

The instances of their crushing boats between their ponderous jaws are numerous and well authenticated. I have seen the remains of a boat that had been bitten in two as cleanly and cleverly as if it had been sawed from gunwale to gunwale. A schoolmate of mine—a wild youth named Augustus Hall, whom the incident made religious—was caught in the jaws of a sperm whale, and escaped by a miracle from almost certain death. In a letter to his mother he said, "Four weeks ago I was very seriously hurt by a whale. The whale stove three of our boats and got me in his jaw, knocked about one half the scalp off my head, but did not affect my skull. He stuck two teeth in my breast, and one in each thigh—one wound was six inches long and two inches deep, and he went off with four irons fastened to him. I suppose, dear mother, this was one of the narrowest escapes from death ever known, and so little hurt! not a bone broken!"—further on in his letter with the pride of his profession he adds, "but I assure you I had rather be fast to a whale than anywhere else," and "we have got fifteen whales to the waist boat, which I had the pleasure of steering, and I have killed seven with my irons."

THE WHALE USES HIS FLUKES

as well as his head or his jaws in the destruction of its adversaries, and makes "the deep to boil like a pot" when he agitates them in rage. In attacking a boat with his mouth he comes up beneath it and seizing it transversely crushes it like the mere egg shell it is to his powerful jaw. When attacked the motions of the sperm whale are as quick as thought. An observer says he has seen them lying motionless fifty feet off, and in an instant swing their huge flukes under a boat and with one blow send it to splinters and men and all ten feet into the air. Such are the amiable characteristics of this "inoffensive animal" of Goldsmith, who is also mistaken in saying that whales have no teeth and live on insects, which, though strictly correct with regard to the right whales, is certainly wrong in both particulars with regard to the *cachelots*.

YOUNG WHALES,

like the youngsters of every family, enjoy their fun and frolics, and spring entirely out of the sea in playful gambollings, when the spray produced by the fall of their huge bulk upon the water has been seen fully fifteen miles, and has attracted whalemen from that distance to their destruction. This gambolling is technically called "breeching."

THE MOST RECENT ATTACK OF A WHALE UPON A VESSEL

that I have seen noticed was published in the Nautical Gazette, a few weeks since, and is as follows:

The three-masted schooner Watauga, Monro master, of Washington, N. C., has lately been left on a reef off the island of Barbuda, W. I. The crew and cargo were saved, but the vessel is a total wreck. The Watauga was a boat of two hundred tons register, upwards of twelve years old, and was originally a side-wheel steamer. While running along with a fine six or seven knot breeze, a sudden and heavy shock and jar was felt, and all supposed that the vessel had scudded into a sea with a violence. The next moment a pair of whales were seen close alongside to leeward.

One of them was frisky enough, and made off rapidly, but the other seemed loggy, moved with apparent difficulty, and presently disclosed a huge gash in his side, from which the blood was issuing and coloring the sea about him. The Watauga passed on, and soon lost sight of the whale, when it was discovered that the false stem was torn off, her main stem split, and the wood ends started. The bobstay had, of course, parted, and the bowsprit was adrift. She was afterwards found to be leaking, and was with difficulty kept free until she had made Point Peter, where temporary repairs were made to enable her to reach home. Upon her arrival at Washington she was repaired, and the damage found to exceed $700. Her stem bolts, 1¼ inch iron, were bent down, evidently by the vessel's effort to rise clear of the whale.

[For the Transcript.]

Notes on Whales and Whaling. XXXIII.

In 1681 a committee was appointed "to make sale of the whales that are lately cast ashore in the harbor of Sandwich"; and it was agreed that "Joseph Holway and those with him in cutting up the whales shall have that part they have already cut and secured, on paying £6 silver money to the town."

In 1690 the General Court appointed "to view and inspect whales" Mr. Skiff of Sandwich and Captain Lathrop of Barnstable; and also passed "an order to prevent contests and suits by whale killers."

In 1693 the towns had a controversy with the sheriff of the county, "he having seized in right of the crown two whales, on shore at Town-neck."

YARMOUTH.

In 1662 the agents of Yarmouth appeared at court "to debate and have determined a difference about whales."

In 1702 Mr. Cotton "accepted of forty pounds in money, of the product of the whale fishes that came to this [Falmouth] town the last year, the town to have the balance."

Cotton Mather, in 1697, referring to the early settlers of Plymouth Colony, says—

> They have since passed on to the catching of whales, whose oil is become a staple commodity of this country; whales, I say, which living and moving islands do find way to this coast, where notwithstanding the desperate hazards run by the whale catchers in their whale boats, often torn to pieces by the strokes of the enraged monsters, yet it is rarely known that any of them have miscarried. And within a few days of my writing this paragraph, [1697] a cow and a calf were caught at Yarmouth. The cow was fifty-five feet long, the bone was nine or ten inches wide, a cart upon wheels might have gone into the mouth of it. The calf was twenty feet long, for unto such vast calves the sea monsters draw forth their breasts. But so does the good God here give this people to suck the abundance of the seas.

This state of things, so quaintly described, had when Mather wrote been progressing on the Cape more than half a century.

EASTHAM.

In 1662 it was agreed by the town of Eastham that a part of every whale cast ashore should be appropriated to the ministry. In 1757 the town voted to prosecute certain inhabitants of Harwich "for carrying on the whale fishery at Billingsgate." The same year (1757) the Indians of Eastham and Harwich complained to the General Court "that their lands were encroached upon and taken from them," referring particularly to "a certain neck or beach in or near Eastham called Billingsgate Point or Island, the place most convenient for the whale fishery in the whole country, and always before so improved." In 1763 the North Precinct, or "Billingsgate," as called in the act, was incorporated under the name of Wellfleet, and it was agreed that whaling, fishing and oystering shall be enjoyed by both towns.

TRURO.

It is said that the inhabitants of Truro were the first to adventure to the Falkland Islands in pursuit of whales. Voyages were undertaken in 1774, at the suggestion of Admiral Montague, R. N., and were crowned with success. Subsequently, the coasts of Brazil and of Guinea were visited by the enterprising mariners of Truro, who were said to be among the most dexterous whalemen in the world.

WELLFLEET.

The whaling business was, in early times, extensively carried on at Wellfleet, and none were more expert than the Indians of the neighborhood in the taking of whales, but, since the Revolutionary war, the enterprise has died out there. Occasionally a stray blackfish comes into the harbor and is captured, or a whale of the larger kind is seen to blow in Barnstable Bay or Provincetown Harbor, which is the signal for sport that is generally successful.

PROVINCETOWN.

In 1803, Provincetown by municipal regulations as a sanitary precaution provided "that all carcasses of whales, sharks, etc.," be towed within a given time, below low-water mark, by those who land them. The produce of oil from fish of various kinds was at this time considerable. The amount ordinarily obtained from different species averaged as follows:

From a right whale, twenty, forty, eighty, or one hundred barrels.

From a humpback, fifteen to fifty barrels.

From a grampus, one, two or three barrrels.

From a blackfish, about one barrel.

From a shark, from one gallon to seven or eight barrels.

From a porpoise, about two gallons.

From a boat load of dogfish, about one barrel.

In June, 1857, a shark was captured off the entrance to Provincetown Harbor, having become entangled in the mackerel nets off Long Point. It was of the species sometimes called "Bone Shark," and measured thirty-one feet in length, breadth of tail and flukes seven feet. Circumference of body in the thickest part, sixteen feet. The liver weighed not far from two tons, and yielded about seven barrels of oil, worth about $200.

The following is probably the oldest whaling song extant. The author, Dr. John Osborn, was born in Sandwich, Cape Cod, in the year 1713. He graduated at Harvard College 1735, and was afterwards a physician in Middletown, Conn.:

"When spring returns with western gales,
And gentle breezes sweep
The ruffling seas, we spread our sails
To plough the wat'ry deep.

For killing northern whales prepared;
Our nimble boats on board;
With craft and rum (our chief regard),
And good provisions stored—

We view the monsters of the deep,
Great whales in numerous swarms;
And creatures there that play and leap,
Of strange, unusual forms.

Cape Cod, our dearest, native land,
We leave astern, and lose
Its sinking cliffs and lessening sands,
While Zephyr gently blows.

Bold, hardy men, with blooming age,
Our sandy shores produce;
With monstrous fish they dare engage,
And dangerous callings choose.

Now, towards the early dawning east,
We speed our course away,
With eager minds and joyful hearts
To meet the rising day.

Then, as we turn our wandering eyes,
We view one constant show;
Above, around, the circling skies,
The rolling seas below.

When eastward, clear of Newfoundland,
We stem the frozen pole,
We see the icy islands stand,
The northern billows roll.

As to the north we make our way,
Surprising scenes we find;
We lengthen out the tedious day,
And leave the night behind.

Now see the northern regions, where
Eternal winter reigns;
One day and night fills up the year,
And endless cold maintains.

When in our station we are placed,
And whales around us play,
We launch our boats into the main,
And swiftly chase our prey.

In haste we ply our nimble oars,
For an assault designed;
The sea beneath us foams and roars,
And leaves a wake behind.

A mighty whale we rush upon,
And in our irons throw;
She sinks her monstrous body down
Among the waves below.

And when she rises out again,
We soon renew the fight—
Thrust our sharp lances in amain,
And all her rage excite.

Enraged, she makes a mighty bound;
Thick foams the whitened sea;
The waves in circles rise around,
And widening, roll away.

She thrashes with her tail around,
And blows her redd'ning breath;
She breaks the air, a deaf'ning sound,
While ocean groans beneath.

From numerous wounds, with crimson flood
She stains the frothy seas,
And gasps, and blows her latest blood,
While quivering life decays.

With joyful hearts we see her die,
And on the surface lay;
While all with eager haste apply
To save our deathful prey.

[For the Transcript.]

Notes on Whales and Whaling. XXXV.

PURCHAS'S DESCRIPTION OF THE METHOD OF KILLING WHALES IN THE SEVENTEETH CENTURY.

Old Purchas, in his "Pilgrimage," printed early in the seventeenth century, describes the several kinds of whales, and the mode of killing the whale in his time, which, excepting in the quaintness of its phraseology, is very similiar to the descriptions of the same operations by modern whalemen. He says—

"I might here re-create your wearied eyes with a hunting spectacle of the greatest chase which nature yieldeth; I mean the killing of a whale. When they espy him on the top of the water (which he is forced to for to take breath) they row toward him in a shallop, in which the harpooner stands ready with both his hands to dart his harping irons, to which is fastened a line of such length, that the whale (which suddenly feeling himself hurt, sinketh to the bottom) may carry it down with him, being before fitted that the shallop be not therewith endangered; coming up again they again strike him with lances made for that purpose, about twelve feet long, the iron eight thereof, and the blade eighteen inches—the hasping iron principally serving to fasten him to the shallop; and thus they hold him in fresh pursuit till often streams of water, and next that of blood, cast up into the air and water (as angry with both elements, which have brought thither such weak hands for his destruction), he at length yieldeth his slain carcase as meed to his conquerors. They tow him to the ship with two or three shallops, made fast to one another, and then, floating at the stern of the ship, they cut the blubber or fat from the flesh, in pieces three or four feet long, which after at shore are cut smaller, and boiled in coppers; which done, they take them out and put them in wicker baskets, which are set in shallops half full of water, into which the oil runneth, and thence is put in butts. This whale fishery is yearly now used by our men in Greenland with great profit."

THE RIGHT WHALES DESCRIBED BY PURCHAS.

The ordinary lengths of a whale are sixty feet and not so huge as Plans hath written, who also maketh the moose as big as an elephant.

The proportion of this huge leviathan deserves description as one of the greatest wonders of the Lord in the deep, whereon himself so much insisteth (Job xli. 12) "that he will not conceal his parts, nor his power, nor his comely proportions." The whale that we here speak of is that great bay whale—for there are two other kinds—the trompo, which has two trunks or breathing holes on his head, whereas the bay whale hath but one, whose brains are said to be spermaceti; the Juburte, which hath a fin on its back, dangerous to boats, exceeding swift and little profitable; besides other kinds.

THE RIGHT WHALE.

This is the most simple and useful; the greater and fatter the more easily taken. His head is the third part of him; his mouth (O, hellish wide!) sixteen feet in the opening, and yet out of that belly of hell yielding much to the ornaments of our women's backs—the whalebones or fins being no other than the rough and inner parts of the mouth, closing in the shutting thereof as the fingers of both hands within each other. Of these fins there are five hundred, from the length of fourteen feet or more, in less and less proportions; he hath no teeth; his meat he sucketh; his tongue is monstrous great, of deformed form, like a wool sack, about eight ton weight, and one part thereof used to this purpose yieldeth from six to eleven hogsheads of oil.

His food (that nature might teach the greatest to be content with little, and that greatness may be obtained without rapine, as in the elephant and whale, the greatest of land creatures and sea monsters) is grass and weeds of the sea, and a kind of water worm like a beetle, whereof the fins in his mouth hang full, and sometimes little birds; all which, striking the water with his tail and making an eddy, he gapes and receiveth into his mouth; neither is anything else (Master Sherwin hath seen them opened and opened this unto me) found in their bellies. This great head hath little eyes like apples, very little bigger than the eyes of an ox, and a little throat not greater than for a man's fist to enter, and that, with huge bones on each side, not admitting it to stretch wider. * * * His body is round, fourteen or sixteen feet thick. * * * They are swallow-tailed, the extremes being twenty feet distant. They have but one young at a time, which is brought forth as in beasts, about the bigness of but longer than a hogshead. The female hath two breasts and teats, with milk in them, not bigger than a man's head, wherewith she suckleth her young, whereof she, as the moose also, is very tender. They killed one and could not get the young one from it. There hath been made seven and twenty tons and a pipe of oil out of one whale; ordinarily sixteen tons, but much is wasted for haste in that store. The English are grown as expert in this business as the Biscainer.

[For the Transcript.]

Notes on Whales and Whaling. XXXVI.

The method of taking whales in 1834, as described by Captain Elisha Dexter:

In the first place, while the ship is on whaling ground, men—generally three—are stationed aloft to look out for whales; one on the foretop-gallant crosstrees, one on the maintop-gallant cross-trees and one on the foretop-gallant yard. One of these is usually supplied with a good spy glass. All the time they are anxiously scanning the horizon. The man who first discovers the spout, or breech, cries out from aloft—

"There she breeches?"

The officer commanding the deck at the time, inquires in a loud voice, "Whereaway?"

"Two points on the lee bow," answers the lookout.

"How far off?" again inquires the officer.

"About six miles, sir," is the reply.

"Put your helm up," says the officer to the man at the the helm. "Square the yards; wall the main yard; loose the foretop-gallant-sail; keep a sharp look out aloft there."

"Aye, aye, sir," answers the man spoken to.

"Keep her straight," now cries the officer to the man at the wheel.

"There she breeches!" repeats the lookout from the top.

"Where, now?"

"Right ahead."

"Do we near them?"

"Yes, sir; we near them fast. There she blows! there she blows! sperm whales, lying like logs upon the water."

"Down from aloft, there!" cries the master. "Haul up the mainsail; haul back the main-topsail in lines."

"There she blows again," again repeats the look out. "There is a large whale in the school; I see one that makes a large spout."

"We'll try and get that fellow," says the master.

"All ready; shall I lower, sir?" cries the mate.

"Lower away as quickly as possible," says the master; and lower they do.

"Shove astern as quickly as possible, and down to your oars," says the officer of the boat. The men spring to their oars, and the boat moves with great velocity.

"Now, Dick, bear a hand with your craft, and down to your oar. Now spring, all of you, spring! There are a hundred barrels of oil in one carcass, yonder. Spring might and main. A bottle without rum, ten pounds of tobacco, and a cap for Aunt Jenny into the bargain, and if she spouts twice more, she is ours."

They have now neared the whale, and are at the proper distance. "Stand up, Dick," says the master to the harpooner. Dick obeys the call; and the boat is guided by the skilful steersman up to the whale's hump. Dick now darts his harpoon into the whale—"to fasten" is the technical term. The barbs of the harpoon are like those of an arrow; having penetrated the flesh they cannot easily be drawn out. "Stern, all!" shouts the officer of the boat; which the men do with a most hearty good will, experience having shown them that the whale will sometimes cut dangerous freaks with her jaw and flukes. The "stern, all," which signifies to pull the boat clear of the whale stern first, is instantly followed by a return to the attack; and now the officer goes into the head of the boat with his lance, and "the boat steerer," or harpooner, takes his place in the stern.

Sometimes a single thrust of the lance will immediately despatch her, so that she will not run a rod. At other times she will run for hours, even for a whole day, dragging the boat after her with immense swiftness. Sometimes the irons draw, or the line parts, or they are compelled, by the approach of night, to sever it, and she is lost. Sometimes, also, she turns upon her pursuers, with great rage, throwing the boat into the air as though it were a feather, or snapping it in pieces with her mighty jaws, as a dog would a chip, and in which the men are sometimes killed. But it is a singular fact that when a man is in the water a whale will not touch him. Probably he is too small an object to attract her attention. The boat only, as the supposed enemy, is made the object of attack. A man may be swimming in a school of whales, and be thrust against their huge sides, and they will take no notice of him.

Finally if a whale is killed, she is taken alongside, and if she is a very large one, in great triumph.

The sensations of those who approach a whale for the first time are not very agreeable; and sometimes, was not a "green hand" more afraid of the officer of the boat than of the whale, nothing could be done; for a whale fifty to a hundred feet long, is a truly formidable-looking opponent. It is not easy to laugh at such a foe; and invincible fearlessness, as well as great dexterity, ls indispensable to success.

[For the Transcript.]

Notes on Whales and Whaling. XXXVII.

CUTTING IN A WHALE.

The first things to be done are to furl the mainsail, and to hoist up the boats on the cranes, and then to set the winding tackles. As the purchase is a strong one, the blocks, which are called "cutting blocks," are very large, being from fifteen to eighteen inches in size; while the "cutting falls," or ropes reeved through them, are about four inches. The lower blocks have straps about four feet long, and on each of these straps there is a large hook weighing from eighty to one hundred pounds, called "blubber hooks." The winding tackles being ready, the captain, with a spade, cuts a hole in the blubber, to receive the hook, and then calls out to the men who are ready to heave at the windlass, "Hoist away, there! bring to, and heave! so! avast heaving, there!" During this time all are busy at work, some cutting off the "junk," others heaving at the windlass, and others "breaking out" the blubber room, in order to fill it with blubber. The "junk" is cut off separately, and is hoisted in whole. These pieces of junk, just cut off are called "blanket pieces." If the whale is not large, the "case," or head is hoisted entire. The contents of the case is called "head matter," and is the most valuable part of the fish. Some heads yield over twenty barrels, or six hundred gallons of this rich matter, and which may be worth five hundred dollars. In appearance and color it resembles the core of a ripe watermelon.

The blubber being now stowed away in the blubber room, or on deck, the "trying" out commences. Two large settles, containing from 80 to 140 gallons each, set in a furnace on deck, are used for this purpose. Alongside the furnace is placed a large copper receiver, called a "cooler," into which the oil is dipped from the kettles, in order to cool, and from which it is removed to the casks in the hold, by means of leather hose. This process is continued night and day, till it is finished; during which the ship is filled with smoke, and the hands covered with grease and dirt; and if the highly improper practice is allowed on board the vessel, they are often in very heavy arrearages for sundry oaths and imprecations. At night the flames light up the ship, making the darkness visible, and night hideous;while the oil is trying out, as it is now as sweet as lard, that important official, the cook, usually avails himself of the opportunity to fry a large quantity of "doughnuts," with which to regale the crew after their severe trial.

While the "trying out" is going on two hands are employed at the cutting tubes in mincing. The knife used for this purpose is about two feet long. The blubber is laid on what is called a "mincing horse," and is cut in pieces about eighteen inches long and six inches wide, which are called "horse pieces." Much care must be used in this process. The oil may not be sufficiently tried, or it may be tried too much, as is the case with hog's lard. Much care must also be used to see that the casks in which the oil is stowed are in a proper state. Oil is sometimes essentially injured in quality through the carelessness in the preparation of the casks. The sediment deposited in water casks, if not cleansed out before the oil is put in, will injure it to the amount of five cents per gallon.

MEN AND WHALES.

It is a singular fact that "when a man is in the water a whale will not touch him," say Captain Elisha Dexter, master of the whaling brig William and Joseph, in his account of the shipwreck of that vessel in 1840. He adds, "Probably he is too small an object to attract his attention. The boat only is the supposed enemy and made the object of attack, the whale sometimes throwing it into the air as it would a feather, or crushing it in pieces between its mighty jaws as a dog would a chip. A man may be swimming in a school of whales, and be thrust against their huge sides, and they will take no notice of him."

The killing of a right whale does not differ materially from the killing of a sperm whale; but the former has some habits which the latter has not. The sperm whale never makes a noise. The right whale is very noisy, sometimes bellowing like a bull when you get fast to them. During the night, when it is calm, they will sometimes make a noise resembling the ringing of a brass kettle. The right whale is also a more nimble animal than the sperm whale.

A SYSTEM OF SIGNALS

is necessarily adopted on board of whale ships. Here is one which was used by Captain Dexter when the boats were out:

Whales ahead—Down jib.

Whales astern—Haul up spanker.

Whales between the ship and boats—Flag half mast.

Whales on weather bow—Haul up the weather clew of the foresail.

Whales on lee bow—Lee clew of foresail.

More whales and a better chance—Flags on the foretop-gallant mast-head and peak of the spanker.

Whales on the weather beam—Mizen topsail aback.

Whales on the lee beam—Keep the ship off and luff her up again.

Whales too near to keep off—Signal to come on board. This signal is made by standing on the top-gallant yards and holding flags in your hands.

CREWS OF WHALE SHIPS.

In whale ships of the same size the number of men varies but little. Six men are always appointed to a boat, one of whom is "the boat steerer." The number of men appointed to keep the ship while the boats are out depends upon the size of the vessel. Thus, a ship of 300 tons, carrying from 2300 to 2700 barrels, requires about five men, which, with three boats' crews, amount to twenty-three men and boys. A larger ship, carrying four boats, requires from thirty to thirty-two men. Fifty years ago, few ships carried more than two boats. Whales were then so plenty and so easily taken that a ship with but two boats could go to the Pacific and return deeply laden with oil in from eighteen to twenty-two months. It is reported of a very enterprising whaling captain of Nantucket, that in sixty months, including the period he lay at home fitting, he made three voyages to the Pacific, and filled his ship each time, in all six thousand barrels of sperm oil; thus literally drawing a fortune from the sea. Once he lay becalmed thirty days, during which time he took and stowed away one thousand barrels.

FOOD OF WHALES.

It is well known that the cuttle fish is the principal and favorite food of the sperm whale. The following description of one of these monsters is given by a correspondent of the Boston Traveller, writing from St. Johns, N. F., under date of April 2, 1873. He says, "Another of those huge squids found in our waters occasionally, has been cast ashore in Fortune Bay. A correspondent of a local print describes it as having a body ten feet in length and as large around as a hogshead. One of its arms, or tentaculæ, was about the size of a man's wrist, and measured forty-two feet in length. The other arms were only six feet in length, but about nine inches in diameter, very stout and strong. It had a liver like a shark's. The suckers were all clustered together near the extremity of the long arm, and each was surrounded by a serrated edge, almost like the teeth of a handsaw. With the long arm it could fasten itself firmly to a rock. The creature is entirely cartilaginous, without bone of any kind." "Two of these cuttle fish have been captured within the last twelve months. This one, however, is the largest yet heard of, and there is no reason whatever to suspect the narrator of its capture of any exaggeration."

THE BALLAD OF THE WHALE.

BY READ THORNTON.

The Northman lay on his iron cliff,
  Outlooking the Norman Sea;
With his bold blue eyes, of wild emprise,
  Abroad o'er the wave looked he.

In a restless mood of solitude,
  He longs in the chase to roam:
"I 've conquered the bear in the Tornean wood,
  And the shark by the deep Maelstrom!

My fitting foe lived long ago—
  The mighty mastodon!"
His blue eyes bravely glance below—
  The chief from his cliff is gone!

'T is the whale! yon whale, that tempts his sail,
  Like an island he moveth on—
"By the soundless sea, I 'll conquer thee,
  Thou ocean mastodon!"

He darted his skiff from the feet of the cliff,
  All armed with his corded spear;
Soon the barb is dyed in the sea-beast's side,
  And away to the west they steer.

With his hempen rein, o'er the ocean plain,
  More fleet than the sledge they go;
With the red setting sun a race they run,
  In the road of its ruddy glow;

And the storm waves kept a glassy calm,
  That strange first barque to see;
And the sea gods rose to chase the charm,
  And shouted, "We 'll ride with thee!"

And one of their troop the Norman chose,
  To share in his daring deed;
White was her breast as the Finland snows,
  Her hair like the brown sea weed.

And thus they twain o'errode the main,
  And the Norseman's shirt of mail
With his shield he clashed, as they landward washed,
  Till he stranded the maddened whale.

That night, on the strand of the new West land,
  He built for his mermaid bride
A bowery hut, and the oil he cut
  For a lamp from the monster's side.

And from these two there sprang a crew,
  The boldest to spread the sail;
And on every plain of the stormy main
  They chase the tumbling whale.

Notes on Whales and Whaling. XL.

PERILS OF THE WHALE FISHERY.

The North Pacific Whale Fishery, and the Destruction of the American Arctic Whaling Fleet off Point Belcher in 1871.

The captains held frequent consultations of the most serious nature. It was manifest, even if the ships were not released, the crews must be got away, as there was no stock of provisions for their maintenance, during this long winter that was approaching, and indeed barely enough all told to last them to the Sandwich Islands, should they get away at once. The situation was extremely critical, and called for prompt and wise action. As a precautionary measure, before any final determination was reached, men were set to work building up the small boats—that is, by raising their gunwales, so that they could ride over the sea with greater safety, and shoeing them, to admit of their being dragged over the rough and jagged ice.

On the 7th of September, an expedition commanded by Captain Frazer, consisting of three or four boats fully manned, started to explore the situation to the southward, ascertain the extent of the ice blockade, the possibility of getting any of the vessels through it, and to find what vessels, if any, were clear, and what relief could be relied on. The expedition returned on the 12th, and Captain F. reported that there were two vessels—the Artic and another—in clear water below the field of ice, south of the Blossom Shoals, and eighty miles distant from the main fleet, and that five more, then fast in the lower edge of the ice, were likely to get out soon. These vessels, with sailors' generosity and humanity, had promised to lay by and wait for those fast in the ice, or take their crews on board should they find themselves unable to get out. The captain also reported that it was utterly impracticable to work any of the ships of the main fleet out.

SECURING PROVISIONS.

On hearing this report the captain held another consultation, at which it was unanimously resolved that it was time for the party, if they were to escape at all, to leave, and that it was as well to save their lives and the lives of their crews, without their ships, as to remain and perish with the ships. In anticipation of this being necessary, the bulk of the provisions remaining on board of the vessel had been taken out and sent in small boats to Icy Cape, as that depot seventy miles further down the coast would greatly facilitate the labor of getting away; the provisions all told being a scanty reliance for the long voyage to Honolulu.

On the 13th the captain held a final conference, when it was decided to abandon the fleet the next day, the 14th, and the necessary arrangements were made for the transportation of the party to the outside ships.

ABANDONING THE VESSELS.

The morning of the 14th was a sad day to that ice-bound community. A sailor is as much attached to his ship as a child to its home, and beyond that, both officers and crews, in abandoning the fleet, sacrificed their entire earnings for the season, and were not allowed to take even their own luggage, excepting so far as approved by the officers as absolutely necessary. At noon precisely the flags were set on all the ships, Union down, which was the signal for abandonment, and with streaming eyes and in silence all hands entered the small boats in prescribed order and pulled away, leaving those signals of distress flying. The day was clear, but pitilessly cold. The bleak northwest wind howled across the waste of jagged ice and penetrated to the very bones of the castaways in the open boats that formed the mournful flotilla. There were women and tender children in the company, as well as the hardy mariners, who had accompanied their husbands and fathers as a relief to the monotony of the long Northern voyage. These were cared for with special pains, and the sailors manifested their readiness to deny themselves any comfort and to make any sacrifices for their safety and protection. The most perfect subordination prevailed, and the men submitted to extra labor, unusual exposure and the loss of their property without a murmur. In leaving the fleet they had a distance of eighty miles to overcome, along an inhospitable and cheerless coast, with a furious and piercing cold gale blowing; the sea, where open, filled with great cakes of ice, which dashed against the boats, threatening them with destruction at every moment; or when running in the comparatively still water of the lagoon, encountering new ice that formed with great rapidity and rendered the progress even more difficult than outside, where the sea was so much more boisterous.

THE JOURNEY TO BLOSSOM SHOALS

required two days for its performance. The first night out the wanderers bivouacked on the beach behind the sand knolls that the storms of ages had thrown up. With such driftwood as they could collect, and a scanty supply of ordinary firewood they had brought along from the ships, they made some small fires to protect themselves from the biting cold. The sailors, with great kindness, dragged the boats over the sand hills, and by turning them bottom up and covering them with sails, made comparatively comfortable quarters for the women and children, while the more hardy men bundled themselves up in their blankets, and with the rest of the sails as an additional covering, lay down in the open air beside the scant camp fires to catch what rest they could. The fires were at best but little aid to comfort, while the pitiless wind soon scattered the combustibles and made an end to even that poor reliance. In addition to these discomforts the company was without water, save only the small quantity that had been brought with them, and which could only be used sparingly.

ON THE SECOND DAY OUT

the boats reached Blossom Shoals, and there spied the refuge vessels lying five miles out from shore, and behind a tongue of ice that stretched like a great peninsula ten miles further down the coast, and around the point of which the weary crews were obliged to pull before they could get aboard. The weather here was very bad, the wind blowing fresh from the southwest, causing a sea that threatened the little craft with annihilation. Still the hazardous journey had to be performed, and there was no time to be lost in setting about it. A day's delay might endanger the lives of all.

DANGEROUS MOVEMENTS.

It was conceded on every hand that there was no time to be lost in getting out of this tempestuous and frozen sea. Therefore all submitted to this danger with becoming cheerfulness, and the little boats started out to perform the almost hopeless sea voyage, every one, even the women and children, smothering their apprehensions as best they could. On the voyage down to the icy point of the peninsula everything went moderately well; but on rounding that point, they encountered the full force of a tremendous southwest gale, and a sea that would have made the stoutest ship tremble. In this fearful sea, the whale boats were tossed about like pieces of cork. They shipped quantities of water at every sea, requiring the utmost diligence of all hands at baling to keep them afloat. Everybody's clothing was thoroughly satuated with the freezing brine, while all the bread and flour in the boats was completely spoiled. The strength of the gale was such, that the ship Artic, after getting her portion of the refugees on board, parted her chain cable, and lost her port anchor, but brought up again with her starboard anchor, which held until the little fleet was ready to sail. By 4 P. M., the 14th of September, the whole company, not one being lost or missing, was safely embarked on the seven vessels that remained of the fleet of *forty* that had been cruising in those inhospitable regions. The refugees were distributed as follows: To the Europa, 280; the Arctic, 250; Progress, 221; Lagoda, 195; Daniel Webster, 113; Midas, 100; Chance, 60. Total, 1219 souls, besides the ordinary crews of the vessels in which they were succored. When the last boat load had been taken on board, the fleet of one hundred and eighty boats, which had brought off the twelve hundred souls, were set adrift, excepting a few retained for use on board the rescuing vessels. The vessels, of course, were terribly crowded, and according to the preconcerted arrangements, set sail immediately, heading for Plover Bay, where they were to rendezvous, in the hope of obtaining water enough to last them to Honolulu. On the day following, they encountered a fearful gale from the southwest, which obliged them to heave to on the starboard tack. When the gale had spent itself, they found themselves off Point Hope, and there was no ice in sight, and everything looked favorable ahead.

ARRIVAL.

From there the vessels moved down through the straits with variable winds to Plover Bay, which was reached on the 21st of September, all the vessels arriving within twenty-four hours of each other, except the barque Chance, the slowest of the fleet, which had not arrived on the 24th, when the other vessels sailed. On account of the short supply of provisions it was not deemed prudent to wait longer for her, and, without further mishap, arrived at Honolulu on the 24th of October, 1870.

WHEN THE VESSELS WERE ABANDONED,

nineteen of them were afloat and within hail of each other; that is, by commencing at one end of the line word could be passed from vessel to vessel to the other end. Some of the vessels were eight miles south of this fleet, and others from two to three miles north. Nearly six hundred of the wrecked sailors were Kanakas, or natives of the Sandwich Islands. The Esquimaux were very friendly, and rendered every assistance they could in their emergency; but the vessels were no sooner abandoned than they began stripping them of everything valuable. They carried off oil and bone in quantities, while the departing crew were yet in sight, also sails, cordage, cabin furniture, provisions, and everything in the way of trinkets they could lay their hands on. It was the opinion that much of this abandoned property thus secured by the Esquimaux would find its way to St. Petersburg and a market.

There was no expectation among any of the whalers that they would ever see any vestige of the abandoned ships again. They thought, indeed, they were pretty well stove before the crew got out of the Arctic Ocean; or if any of them, by being thrown high up on the beach with the force of the ice, should escape being crushed, they would be broken up for firewood by the natives before spring.

THE FOLLOWING ARE THE VESSELS THAT WERE ABANDONED.

1. Barque Awashonks, 376 tons; Norton, master; value, $58,000; New Bedford.
2. Barque Concordia, 360 tons; Jones, master; value, $75,000; 650 bbls. whale oil; New Bedford.
3. Ship Countess, 342 tons; Owen, master; value, $40,000; 850 bbls. whale oil; New Bedford.
4. Barque Elizabeth Swift, 327 tons; Biven, master; value, $60,000; 700 bbls. whale oil; New Bedford.
5. Barque Emily Morgan, 365 tons; Dexter, master; value, $60,000; 150 bbls. whale oil; New Bedford.
6. Barque Eugenia, 315 tons; Nye, master; value, $56,000; 250 bbls. whale oil; New Bedford.
7. Barque Fanny, 391 tons; Williams, master; value, $58,000; 300 bbls. whale oil; New Bedford.
8. Barque Gay Head, 300 tons; Gifford, master; value, $40,000; 530 bbls. whale oil; New Bedford.
9. Barque George, 260 tons; Osborne, master; value, $40,000; 300 bbls. whale oil; New Bedford.
10. Ship George Howland, 361 tons; Knowles, master; value, $43,000; 500 bbls. whale oil; New Bedford.
11. Barque Henry Taber, 296 tons; Packard, master; value, $52,000; 300 bbls. whale oil; New Bedford.
12. Barque John Wells, 358 tons; Dean, master; value, $0,000; 300 bbls. whale oil; New Bedford.
13. Barque Massachusetts, 356 tons; Mitchell, master; value, $46,000; 350 bbls. whale oil; New Bedford.
14. Barque Minerva, 337 tons; Allen, master; value, $50,000; 130 bbls. whale oil; New Bedford.
15. Barque Navy, 386 tons; Boaldry, master; value, $48,000; 280 bbls. sperm and 400 bbls. whale oil; New Bedford.
16. Barque Oliver Crocker, 305 tons; Fisher, master; value, $48,000; 200 bbls. whale oil; New Bedford.
17. Ship Reindeer, 332 tons; Loveland, master; value, $40,000; 800 bbls. whale oil; New Bedford.
18. Ship Roman, 359 tons; Jernegan, master; value, $60,000; 650 bbls. whale oil; New Bedford.
19. Barque Seneca, 328 tons; Kelley, master; value, $70,000; 450 bbls. whale oil; New Bedford.
20. Ship Thomas Dickinson, 461 tons; Lewis, master; value, $50,000; 500 bbls. whale oil; New Bedford.
21. Barque William Rotch, 290 tons; Whitney, master; value, $43,000; 200 bbls. whale oil; New Bedford.
22. Barque J. D. Thompson, 315 tons; Allen, master; value, $45,000; 100 bbls. sperm and 700 bbls. whale oil; New London, Conn.
23. Ship Monticello, 314 tons; Williams, master; value, $45,000; 270 bbls. sperm and 630 bbls. whale oil; New London, Conn.
24. Barque Carlotta, 484 tons; Smith, master; value, $52,000; 700 bbls. whale oil; San Francisco, Cal.
25. Ship Champion, 367 tons; Pease, master; value, $40,000; 275 bbls. sperm and 300 bbls. whale oil; Edgartown, Mass.
26. Barque Florida, 470 tons; Fraser, master; value, $51,000; 350 bbls. whale oil; San Francisco. Cal.
27. Ship Mary, 372 tons; Herenderson, master; value, $57,000; 300 bbls. whale oil; Edgartown, Mass.
28. Barque Victoria, 149 tons; Redfield, master; value, $30,000; San Francisco, Cal.
29. Barque Paira, Honolulu, Sandwich Islands.
30. Ship Julian; value, $40,000; Honolulu, S. I.
31. Barque Kohola; value, $20,000; Honolulu, S. I.
32. Barque Comet; value, $20,000; Honolulu, S. I.
33. Barque Victoria, 2d, Honolulu, S. I.
34. Barque Gay Head; Kelley, master.

VESSELS SAVED.

1. Europa; 330 bbls. whale oil; Edgartown, Mass.
2. Daniel Webster; 250 bbls. whale oil; New Bedford, Mass.
3. Chance.
4. Midas; 140 bbls. sperm and 450 bbls. whale oil; New Bedford, Mass.
5. Lagoda; 735 bbls. whale oil; New Bedford, Mass.
6. Progress; 250 bbls. whale oil; New Bedford, Mass.
7. Arctic; 480 bbls. whale oil; Honolulu, S. I.

The vessels hailing from Honolulu had mostly American owners, and had been put under the protection of the Hawaiian flag during the war, in consequence of the depredations of the Shenandoah and other rebel vessels.

Previous to the abandonment of the ships the masters signed the following protest, which had been prepared by a committee appointed for that purpose. The protest bears date the 12th, but was not signed until the 13th. It reads as follows:

THE CAPTAINS' PROTEST.

POINT BELCHER, ARCTIC OCEAN, Sept. 12, 1871.

Know all men by these presents, that we, the undersigned, masters of whale ships now lying at Point Belcher, after holding a meeting concerning our dreadful situation, have all come to the conclusion that our ships cannot be got out this year, and there being no harbor that we can get our vessels into, and not having provisions enough to feed our crews to exceed three months, and being in a barren country where there is neither food nor fuel to be obtained, we feel ourselves under the painful necessity of abandoning our vessels, and trying to work our way south with our boats, and, if possible, get on board of ships that are south of the ice. We think it would not be prudent to leave a single soul to look after our vessels, as the first westerly gale will crowd the ice ashore, and either crush the ships or drive them high upon the beach. Three of the fleet have already been crushed, and two are now lying hove out, which have been crushed by the ice, and are leaking badly. We have now five wrecked crews distributed among us. We have barely room to swing at anchor between the pack of ice and the beach, and are lying in three fathoms of water. Should we be cast upon the beach it would be at least eleven months before we could look for assistance, and in all probability nine out of ten would die of starvation or scurvy before the opening of spring.

Therefore we have arrived at these conclusions: After the return of our expedition under command of Captain D. R. Frazer of the Florida, he having with whaleboats worked to the southward as far as Blossom Shoals, and found that the ice pressed ashore the entire distance from our position to the shoals, leaving in several places only sufficient depth of water for our boats to pass through, and this liable at any moment to be frozen over during the twenty-four hours, which would cut off our retreat even by the boats, as Captain Frazer had to work through a considerable quantity of young ice during his expedition, which cut up his boats badly. [Signed by the masters.]

Captain William H. Kelley, who commanded the Gay Head, one of the deserted ships, visited the scene of the disaster in command of another ship the following year, and wrote as follows concerning some of the vessels:

The barque Minerva lies at the entrance of Wainwright Inlet, as good as when abandoned, in hull, but her cabin is marred considerably. She lay on the edge of the beach, and she swung in shore clear of the heavy ice which grounded outside of her, and she received no damage.

The Thomas Dickenson lies on her beam end, on the bank, bilged and full of water. I don't know whether they will get her off or not. The barque Seneca (brother Ned's vessel) was dragged by the ice up the coast some distance—her bowsprit gone, bulwarks stove and rudder carried away. She was then frozen in solid, and so they found her; so will probably be saved if she is not stove. The Reindeer sank and the Florida lies ashore on Sea-Horse Islands, burned to the water's edge; and all the rest of the fleet were either carried away by the ice or crushed to pieces in shapeless masses, or burned by the natives. They burned the Gay Head (the ship I abandoned) and Concordia where they lay. The barque Massachusetts went around Point Barrow. There was one white man on board her, who stayed up here last winter. He made his escape over the ice this summer, and was five days getting back to the ships. He was about used up when they found him this summer. The natives set out to kill him, but the women saved him, and afterward the old chief took care of him. He saved a large quantity of bone, but the natives took it away from him, except a small quantity. He said $150,000 would not tempt him to try another winter in the Arctic. He said that four days after we left the ships last year, the water froze over, and the natives walked off to the ships; and fourteen days after there came on a heavy northeast gale and drove all but the ground ice away—(that never moved.) Shortly after there blew another northeast gale, and he said that of all the butting and smashing he ever saw, the worst was among those ships, driving into each other during those gales. Some were ground to atoms, and what the ice spared the natives soon destroyed, after pillaging them of everything they pleased.

[For the Transcript.]

Notes on Whales and Whaling. XLIII.

WHALING IN DAVIS STRAITS AND BAFFIN'S BAY—1858–1859.

The London Times, in 1859, said that the Esquimaux having years before informed the whalemen that large numbers of whales resorted to certain inlets and bays in Davis Straits and Baffin's Bay, where they remained during the winter for shelter, it suggested to Captain Penny (one of the officers who distinguished himself among the searchers for Sir John Franklin), the idea of fitting out parties to winter in the polar regions, near the places where the whales resorted, to secure as many as possible in the fall and spring, and to boil the oil during the winter. Two vessels were accordingly perpared for the purpose, with iron tanks fitted to them, and so arranged that the oil, when boiled, could be conveyed by gutta percha and other pipes to every tank in the hold. Boilers, and a supply of coal for boiling the oil on land while in winter quarters, were also taken, as well as a plentiful supply of provisions, and the necessary comforts for the long arctic winters. This was indeed returning to the manner in which the Greenland fishery was carried on in the olden time at Smeerenbugh—only with modern improvements.

Two ships thus equipped, and manned with thirty-three men and three boys, sailed from Aberdeen on the 13th of August, 1858, and reached the fishing grounds in Baffin's Bay, on the 17th of September; and here they found an abundance of whales, ten of which they killed and secured before the 1st of November. They went into winter quarters in Hogarth's Sound, erected boiling houses and set to work to boil their oil. In this work they were assisted by fifty Esquimaux engaged for the purpose.

Their efforts were entirely successful, *notwithstanding the cold was forty degrees below zero.* The active duties of the men tended to preserve their health, and none felt time to hang heavily. But, singular as it may seem, that dreadful scourge, the cholera, broke out among the Esquimaux, and swept off many, while the crew escaped with slight premonitory symptoms.

Early in the following spring the fishing was resumed with great success, although the edge of the ice was twenty miles from the ship. Seventeen whales were killed, and after being cut up, were transported by the Esquimaux on sledges drawn by dogs over this ice to the ships, where the oil was boiled as before. One ship was soon filled with boiled oil and whalebone, when Captain Penny sailed for Aberdeen, leaving the other ship to continue the fishing and boiling. He was of opinion that with a large commercial company, this fishing could be prosecuted along an extensive coast line, and with great advantage. Two American ships had anticipated expeditions, and had been equally successful. Deer and other wild animals abounded.

A FRENCH WHALER—1857.

A year before Captain Penny's vessel was fitted with iron tanks to receive the oil, a French whaler, the "Phoque," commanded by Captain Leeque was on the Pacific, similarly equipped. The advantages are so obvious that it is a wonder the plan has not been more generally adopted. The Phoque had also a new kind of try works which did not occupy half the space of the large brick structures in American ships. The whole of the vessel was one immense iron tank, divided into compartments, and built to conform to the shape of the vessel, which must have added greatly to her strength. From each compartment was an iron pipe leading to the deck, through which the oil was easily run down, without waiting for it to cool, as they must do when it is put in casks. Captain Leeque had also a number of large casks fitted to attach to a whale when he was about to die to prevent its sinking, clumsy imitations perhaps of the Indians buoys.

The sea in Davis Straits is less incommoded with field ice than the Greenland and Spitsbergen seas, but it abounds with icebergs; and the fishing, when carried on in Baffins Bay and Lancester Sound, is perhaps more dangerous than any that has been attempted.

From 1814 to 1842 inclusive, the aggregate number of vessels belonging to Great Britain employed in the Greenland whale fishery was 1021. In the Davis-Straits Fishery, 1763, making a total in twenty-six years of 2784 vessels, of this fleet, 112 were lost, and the number of whales taken amounted to *twenty-one thousand five hundred and fifty-eight.*

The result of whaling, by American whalers, in Hudson Bay and vicinity for thirteen years past is as follows:

1860,	11	vessels	averaged	167	barrels.
1861,	10	"	"	336	"
1862,	9	"	"	406	"
1863,	10	"	"	730	"
1864,	20	"	"	314	"
1865,	22	"	"	321	"
1866,	24	"	"	159	"
1867,	20	"	"	202	"
1868,	14	"	"	187	"
1869,	13	"	"	169	"
1870,	11	"	"	259	"
1871,	9	"	"	425	"
1872,	9	"	"	196	"

[For the Transcript.]

Notes on Whales and Whaling. XLVI.

NANTUCKET AND THE WHALE FISHERY.

In numbers four and five of this series something has been noted of the early enterprise of Nantucketmen in pursuit of the whale, and the prosperity which attended it. Now that this enterprise of the hardy islanders is extinct, and has been diverted to their more prosperous neighbors—for we read in a recent paper of this year of our Lord 1873, that the last whaler barque belonging to Nantucket, viz., the "R. L. Barstow," has been sold at Callao—it will not be considered amiss to note more particularly the history of American whaling, as originating at and connected with Nantucket.

The island of Nantucket was discovered in 1602, by Captain Bartholemew Gornald, an Englishman, on his voyage to Virginia. In 1641, the island was deeded to Thomas Mayhew and his son by the agent of the earl of Sterling, and in 1659, it was sold by Mayhew to Tristam Coffin and others, who became the first actual settlers upon it about the same time. The island contains nearly 30,000 acres of land, and is about fourteen miles long by three and a half miles broad. Thomas Macy was the first settler upon it, in August 1659. On this little sandy, isolated spot the American whaling enterprise originated, and was for many years prosperously carried on, and it has been continued, with varying fortune, to the present time, when, it may be said, as far Nantucket is concerned, to have died out.

The first whaling expedition from Nantucket was undertaken by some of the original purchasers of the island, about 1670, and is said to have originated in this manner—

A whale, which is commonly called "a scragg whale," came into the harbor, and continued there for three days. This excited the curiosity of the people, and caused them to devise measures to prevent its return out of the harbor. They accordingly invented, and caused to be made for them a harpoon, with which they attacked and killed the whale. This first success encouraged them to undertake whaling as a permanent business; whales being at that time numerous in the vicinity of the shores. In 1672 James Lopar made a contract to settle on the island, and engage in the business, as appears from the following record:

5th 4th mo., 1672. James Lopar doth Ingage to carry on a design of whale catching on the Island of Nantucket, that is the said James Ingage to be a third in all respectes, and som of the Town Ingage Also to Carrey on the other two-thirds with him in like manner, the Town doth also Consent, that first one Company shal begin and afterward the rest of the freeholders, or any of them, have liberty to set up another Company Provided that they make a tender to those freeholders that have no share in the first company, and if any refuse the Rest may go on themselves, and the Town doth also Ingage that no other Company shall be allowed hereafter. Also whosoever Kil any whale of the company or company's aforesaid they are to pay to the Town, for every such whale five shillings —and for the Incorragement of the said James Lopar, the Town doth grant him Ten acres of Land in some convenient place, that he may chuse in, (Wood Land exceped) and also Liberty for the Commonage of thre Cows and twenty sheep, and one horse with necessary Wood and Water for his use on Conditions that he follow the Trade of Whaling on the Island ten years in all the season thereof, beginning the first of March next insuing. Also to build upon his land, and when he leaves Inhabiting upon the Island, then he is to open his Land to the Town at a valluable price, and if the Town do not buy it—then he may Sel it to whom he please—the commonage is granted only for the time he stays there.

John Savage was, about the same time, invited to remove his family to the island to serve himself as a cooper, and was granted by the town nearly the same terms as Lopar, viz.: ten acres of land and commonage for three cows and one horse.

How far this plan succeeded has not come down to us; all that is known is that the profits of the business were sufficient to encourage its pursuit. Finding that the people of Cape Cod had greater proficiency in the art of whale catching than themselves, the people of Nantucket, in 1690, sent thither and employed one Ichabod Padduck to instruct them in the best manner of killing whales and extracting their oil. The same year in which Ichabod Padduck was sent for from Cape Cod, as some persons on a high hill afterwards called Folly-

House Hill, were observing the whales spouting and sporting with each other, one of them said, "There!" pointing to the sea, "is the green pasture where our children's grandchildren will go for bread." It was many years, however, before they began to whale with vessels. The pursuit was commenced in boats from the shore, and increased from year to year, till it became the principal business of the islanders. The Indians readily joined with the whites in the new pursuit, and by their assistance the settlers were enabled to fit out a far greater number of boats than they could have done by themselves. Nearly every boat was manned in part, and many entirely by natives; some of the most active being made steersmen, and some even allowed to head the boats; thus encouraged they became experienced whalemen, and capable of conducting any part of the business.

In pleasant days, during the winter, they ventured in their boats nearly out of sight of land. To enable them to discover whales at a considerable distance from the land, a large mast or spar was erected, and cleats nailed to them, to enable the whalemen to climb to the top, and keep a good lookout for their game—a method I have seen still in use for the discovery of schools of menhaden and other fish on the seacoast of Long Island.

For the first thirty or forty years after the commencement of the whaling, there appears to have been no perceptible decrease in the number of the animals. In 1726, eighty-six were taken, a greater number than has been obtained in any year before or since. The greatest number ever killed and landed on the shore in one day is eleven.

The first spermaceti whale known to the islanders was cast ashore, dead, on the southwest part of the island, and there were many claimants for the prize. As we have already narrated, the process called *saving* the whales after they had been killed and towed on shore, was to use a crab capstan to heave and turn the blubber off as fast as it was cut. The blubber was then put into carts and carried to their try houses, which were placed near to the islanders' dwellings, where the oil was boiled out fitted for market.

Whaling with boats continued until about 1760, when the whales becoming scarce, it was by degress discontinued. Since that date, whales have occasionally been obtained from the shore.

Whales being plenty near the shore, people were led to conclude that they would find them still more numerous were they to pursue them with vessels into the deep. The first spermaceti whale taken by Nantucket whalemen was killed by Christopher Hussey. He was cruising near the shore for right whales, and was blown off some distance from the land by a strong northerly wind, when he fell in with a school of sperm whales, and killed one and towed it home. This adventure is said to have occurred in 1712. It immediately gave life to the business, for vessels of thirty tons were at once equipped to whale out on "the deep," as it was called, to distinguish it from in-shore whaling. They fitted out for cruises of about six weeks, carried a few hogsheads, enough to contain the blubber of one whale, with which, after obtaining it, they returned home, where it was given in charge of the owner, who tried it out and immediately sent the vessel out to try her luck again.

Notes on Whales and Whaling—No. LI.

The following whalers' song about the wonderful whale has just now met my eye, and I send it by way of postscript:

THE WONDERFUL WHALE.

About a great sea snake you 've heard
  In a rare astounding tale;
So now I 'll tell you what occurred
  With a thumping South Sea whale!
  With a monstrous South Sea whale!
'T was in the autumn of the year
  We left the river's mouth,
And with a spread of sail did steer
  Towards the chilly South.

We reached our post there by degrees,
  And weather'd many a gale,
When all at once our captain sees
  A thumping great big whale.
It crawled along like any snail,
  In scorching sun at noon;
Until they sent into its tail
  A jolly sharp harpoon.

Right mad with pain, it quickly turned
  And flew at Harpoon Jack;
But he its malice coolly spurned
  By sticking at its back.
It rushed on, wounded fore and aft,
  Determined none to spare;
Then put its tail beneath their craft,
  And threw 'em in the air.

By good luck, Jack, with oar in hand,
  Soon got upon the boat;
And there he tremblingly did stand,
  This sad reverse to note.
The whale surveyed, then flew at Jack,
  While he for aid did bawl,
With gaping mouth, and in a crack
  It swallowed him, boat and all.

Like Jonah in the whale's inside,
  Poor Jack was safely stowed;
And when he came to himself he cried,
  "I 'm in it, now, I'm blow'd;
But I' d not sink in sight of rocks,
  Sours add but to the gripe,"
So out he lugged his backey box
  And lighted up his pipe.

As Jack his cloud blew in the dark,
  The smoke grew pretty thick;
The whale, unused to such a lark,
  Soon turned uncommon sick:
This brought a thought into its sconce,
  To force Jack from below;
But Jack who had passed his toeth-chaw once,
  Held fast, and cried, "No go!"

The whale now grew so very ill
  With pain it fairly sighed,
And though 't was much against his will,
  Soon gave it up and died.
Jack cut a hole then through its side
  And quick put out his oar;
And having then a flowing tide,
  Soon rowed himself ashore.

Now Jack, when he the sand did reach,
  Ashore jumped with a smile!
He drew the whale upon the beach
  And his carcass sold for oil.
The truth our ship's crew don't deny,
  But tell it with a grin;
I only say, if its all a lie,
  We 're nicely taken in.

Can any of your readers inform me who was the writer of the above lines.

I am informed by a Nantucket man that James Lopar, who contracted to settle on the island in 1672, never lived upon the island. A complete list of proprietors, sharesmen and half sharesmen up to 1674 fails to show his name, though all the whole and half sharesmen are noted and "their lots layed out by the lot layers." Save in the agreement which is given in No. XLVI., his name occurs nowhere on the town records.

Professor N. S. Shaler, upon the authority of Captain John Pease, an old and observant whale fisher, writes as follows in the January number of the American Naturalist, concerning the fre- a fact which, if it can be proved, may certainly become a strong argument for the Darwinists. It is as follows:

"The captain is convinced that the right whale has a trace of hair within the skin. He says that when the skin is fresh, if it be scraped with a knife so as to remove the superficial parts, there will then be seen a trace of hair in the inner section. This point is worthy of attention from those naturalists who have opportunities for such work. It is evident that if the whale is the descendant of some land mammal form, it would be likely to preserve a trace of the hair covering. In this connection it is interesting to note that, in the museum at Nantucket, there is a tooth of a sperm whale with two fangs after the fashion of an ordinary mammalian canine. The specimen was taken many years ago, but with it is the statement that the other teeth of the whale were of the same fashion. This clearly looks like a reversion to some higher mammalian form of dentition.

WHITE WHALES for aquariums are caught at the Isle aux Condres in the St. Lawrence, seventy miles below Quebec. Here a little French colony make a business of spearing porpoises for their oil, taking now and then a white whale, the larger of which are preserved for the aquariums as they are required from time to time. These whales are timid, stupid creatures. In pursuit of small fish they run up close to the shore, and the fishermen corral them by planting stakes at distances nearly two feet apart, in a line enclosing a parallelogram a mile in width, and extending three-quarters of a mile from shore seaward. As the tide recedes, the whales find themselves within this enclosure. One of the big whales could swoop down a score of the stakes by a single dash at them, and there is even room for him to dart between without touching them; yet so cowardly is he that these slender obstructions suffice to turn him. He will rush seaward to within a yard of the fence, then wheel in wild affright and dart back toward shore, and so aimlessly exhaust himself, while the water is constantly growing more and more shallow. At last he lies helplessly stranded. None have ever been known to break through the barrier and escape. The boxing up and transportation of these big fish is a great labor, and it often takes thirty strong men several hours to get one of the monsters into his travelling case. Once in his box, water has to be poured over the backs and blowholes of the imprisoned whale every five minutes. That water pouring, by the way, is a monotonous and tiresome job, which must be continued without intermission during the next ninety hours, while the whales are being carried by schooner to Quebec, thence by rail via Montreal and Albany to New York. The water in which they lie must not cover their blowholes, else, as they have not room to move, they would be unable to rise and breathe, and would, consequently, drown; yet they must be kept constantly wet. So their boxes are tight only as far up from the bottom as their eyes. Above that line there are cracks for the surplus water to flow off, and a man must stand over them until they can be got into a tank, dipping from the river while in the schooner, or from a hogshead when in the cars, and drenching them all the time.

THE WHALERS IN THE ARCTIC REGION.

News Looked For by the General Harney—The Vessel Expected at San Francisco Within Ten Days—New Bedford Whalers in the Fleet—The Business and its Present Value.

Dealers in whalebone and oil are awaiting with much interest the arrival in San Francisco of the Arctic trader General Harney, looked for within ten days. This vessel was despatched from the Golden Gate in May last with stores to the twenty whalers cruising in the northern waters, and to bring back their season's catch of oil and bone. Seventeen of the fleet are New Bedford vessels—the other three are from San Francisco,—so that the General Harney's arrival has something of a local interest. Just now there are fifteen whalers at the wharves in New Bedford, and should the news from the Arctic be that a small catch had been taken, these idle whalers will probably all be dismantled, and be laid up until early next spring, when, if the markets improve, they will be fitted for the usual three years' cruise. There are at present 186 vessels all told engaged in whale-fishery, against 668 in 1854. New Bedford continues to lead in the business. Counting the ten Scotch steam whalers now at work in Baffin's bay, not more than twenty-five are from seaports outside of New Bedford. It may be interesting to recall that when the business was at its height in 1854, New Bedford fitted out 410, Nantucket 47, Provincetown 27, Fairhaven 49 and New London 55. The previous year the receipts of bone were 5,652,300 pounds, against 267,255 in 1878, the prices ranging in 1853 from 34 to 40 cents, against $2 50 to $3 the present season. The receipts of oil were, in 1854, 208,000 barrels, against 40,000 in 1878. In this year of heavy receipts there were 552 vessels in the Arctic fisheries. There is very little change in the whaling grounds outside of the Arctic seas. The whales run down early in the summer into the southern latitudes to "calve," but in returning they keep very much closer to the ice, and in the Arctic run under and alongside the fields and bergs. For twenty years the whalers had not followed the fish west of Point Barrows, but in 1875 the fleet went as far as Camden bay, and four of the vessels were abandoned, since which time not a vestige of these vessels has been met with. The fleet has never been so far west since, Harrison's bay being considered well to the westward. But as New Bedford parties are now building a steam Arctic whaler at Bath, Maine, the first of this class ever sent from the United States, there may be a great change in the Arctic fishing grounds, and a more economic method of following the schools discovered. This steamer will fit away in September. It will go direct to and cruise along both coasts of Patagonia, where the whaling this season has been unusually fine; thence it will run up along the off shore and the line grounds, touching in at San Francisco, after cruising through the Society and Sandwich islands, discharging the catch; and by June next it will steam directly into the Arctic seas.

The Indian ocean fleet, and the two vessels of the New Zealand coast, have been fairly successful, but the sperm season of the west coast of New Holland in Australia, and the catch in the vicinity of the Desolation islands, southeast of Africa, at last accounts were poor. It is in the last-named locality, and also in the Indian ocean, that the whalers look in each catch for that knot of diseased intestines known as ambergris, which weighs from forty to two hundred pounds, and is usually more valuable than the whole cargo of oil and bone. The last lot brought into New Bedford was, on the Caroline Gibbs, 125 pounds. The whale was taken off the Tristan islands, in the south Atlantic, and the lot was sold *for twenty-five thousand dollars to a Boston druggist. It may be* interesting to know that this most *disagreeable* stuff is used in the manufacture of perfumes. New Bedford outfitters claim that unless a vessel can take 2500 barrels of sperm oil in three years, oil fishing will not pay. As few have reached this quantity in the voyages ending the past year, more attention is being given to catching the right whale in the Arctic, in which the bone is more valuable. The consumption of sperm oil has been abridged principally by the introduction of lard oil. Nothing would so rejoice the sordid heart of the whaleman as a hog cholera at the West. The failure of the menhaden season this summer is a bit of encouragement to holders of humpback and similar classes of whale oil. This is a thick oil that does not strain clear, and is largely used by tanners and curriers. The oils taken in the South seas are somewhat similar, but the Arctic oils are clear and limpid, and are used both for burning and lubricating purposes. Sperm oil is used almost exclusively as a spindle lubricant, the English spinners taking from us about 20,000 barrels a year. Last fall, when the catch was large and the market dull, prices fell off to 85. This seemed so very low that Englishmen came over and bought on speculation out of New Bedford about 15,000 barrels at 82c. But the market has since receded to 75c., with a stock of about 50,000 barrels on hand, and the spinners at Oldham and other large English manufacturing centres idle on account of a strike. The sale of whalebone is very large in Paris and Berlin, where the leading *modistes* make women's costumes an art. Since the long trains have been fashionable the slabs of bone that will cut ten feet lengths have commanded extra prices. Whalebone runs from four to ten feet long and is now worth $2 50 a pound. A substitute has been attempted in the horn from Australian oxen. The greatest lengths of these run to seventeen inches, and they sell at $1 a pound, but this horn, notwithstanding the care in its preparation, on being used gives out a disagreeable odor.

The results of this season's whaling will be known between the first and fifteenth of November, but whether there will be anything to favor an advance or a further decline is not even speculated upon by New Bedford outfitters. One of the last voyages settled up at New Bedford did not yield a dollar of cash to the crew, and their advance and modest purchases during the cruise actually brought them in debt to the owners. It seems very hard that over three years'severe work should not yield eleven men more than a modest fare and cheap wearing apparel. Whaling is done on the coöperative plan. The owners furnish the vessel, fit-out and food for two-thirds, and the officers and crew do the work for one-third, and settlement is made on the return at the current market price for oil and bone when landed at the wharf. Among the ship's officers and men the division is on the value of the whole cargo, as follows: The captain has one-sixteenth; first mate, a twenty-fourth; second mate, thirty-fifth; third mate, one-fiftieth; boat-steerers, one-eightieth to one-ninetieth; ordinary seamen, one one-hundred and sixtieth to one one-hundred and seventieth, and green hands, one one-hundred and ninetieth to one two-hundred and tenth. The advances at the outset of the voyages are: First mate, $200; second mate, $175; third mate, $150; seamen, $125, and green hands, $100. A chest containing clothing and tobacco, etc., is put on board, out of which the men replace their worn-out or lost clothing at an advance of about fifty per cent on the cost. For instance, a coat costing six dollars is sold out of the chest for nine. Notwithstanding the dangers of the business and its very poor returns, there are large numbers of men now hanging about New Bedford waiting for the expected Arctic news, in the hope of a chance to ship on the cruises that may possibly be made into the south Atlantic and Pacific.

Whaling in the Pacific. The San Francisco Chronicle says—The fact that whales abound in sufficient numbers immediately outside this harbor—between the Farallones and Golden Gate—to warrant the establishment of a whaling industry of some importance, is not generally known, the idea generally entertained being that our waters are too far south to become the resorts of schools of whales, and that only an occasional fish, separated from his companions in the north, strays into latitudes so far from his supposed habitat—the northern ocean. Considerable numbers of whales can be found at all seasons of the year in the ocean adjacent to this port, and within a distance that can be easily traversed in a day. Between the 1st of May and the 1st of October is the most favorable season for fishing, on account of the calm weather generally prevailing. When fishing in rough weather, there is always some liability of losing the fish by breaking the line or by cutting loose when the vessel is endangered. The abundance of whales on this coast is accounted for by the fact that whales migrate southward along the coast in winter, returning northward during the summer, and are constantly in motion. The varieties of whales which may be caught in this vicinity are the sulphur bottom, which is about 130 feet long, the largest in the world, and weighs in the neighborhood of 200 tons, yielding a small quantity of valuable bone, but being rich in oil; the humpback, weighing 120 tons; the California Grays, 80 tons, and finbacks and blackfish forming the remainder. Sperm whales, which are valuable on account of the large quantity of spermaceti which they yield, are but rarely found in our waters, and prove a valuable addition to a vessel's catch. Captain Thomas Whitelaw is now constructing a little screw steamer, sixty-five feet long, sixteen wide and nine deep, with which he intends to inaugurate the business of whaling outside the Heads. She will be completely decked over, so that a sea can go completely over her without causing damage. She is built very strongly, and is deeper than ordinary, so that she can be drawn some distance into the water by a whale to which she may be made fast, without danger. She will be fitted with two compound engines—four cylinders. She can carry coal enough for a run of thirty days, which will be stored in the after part, and, with the weight of her machinery, is expected to keep her propeller submerged, to avoid the "beating" caused by the blades when the vessel pitches, which can be heard by a whale a considerable distance, and frightens him off. The cabin will be in the forward part, and will be occupied by the crew of five men. The vessel is expected to have a speed of nine knots an hour. Her large coal capacity is to enable her to take an arctic trip if required. The mode of killing whales adopted by this vessel is by the whaling rocket, or bomb-lance, which can be discharged from the vessel, which method possesses considerable advantages over the old style of hunting whales in a boat and with the hand-lance. The expectations are that an average of ten fish will be caught each month. When a whale is despatched the steamer will tow him into port and land him at the reduction works, where the carcass will be treated to an improved process by [illegible] will be introduced, which [illegible] effect of completely digesting the mass and separating the oil, which will then be drawn off. The process will be completed in about eight hours, when the residue of flesh and bones will be taken out, dried and afterwards ground together to produce a fertilizer. The bones are valuable for this purpose on account of the phosphate of lime which they will yield. Three "trys" can be made in a day, and as three digesters have been constructed—each capable of containing a ten-foot section of a whale—a large fish can be reduced in two days. An arctic whale yields from 1700 to 3500 pounds of bone, worth $2.75 a pound by the cargo at New Bedford. Each whale also yields from 100 to 250 barrels of oil worth $10 per barrel.